Dorset Area Watershed Modelling

A Report For

Acid Precipitation in Ontario Study (APIOS)

Prepared By

Martin Goebel Associates

For

Ontario
Ministry of the Environment
Water Resources Branch

March 1983

ALWP

MARTIN GOEBEL ASSOCIATES

62 Niles Way
Thornhill, Ont. L3T 5B8
Tel: (416) 731-3653

March 30, 1983

Mr. S. E. Salbach, Assistant Director
Water Resources Branch
Ministry of the Environment
1 St. Clair Avenue West, 7th Floor
Toronto, Ontario, M4V 1K6

Attention: Dr. L. A. Logan, Chief,
Hydrology Unit

Gentlemen:

HYDROLOGICAL ANALYSIS AND MODELLING FOR ACID PRECIPITATION IN ONTARIO STUDY (APIOS)

On behalf of my firm, I take great pleasure in presenting the results of the hydrological analysis and modelling carried out over the past year. The attached report entitled 'Dorset Area Watershed Modelling' was prepared under your contract no. A 74369 in response to your request for proposal dated March 17, 1982.

I feel that the objectives that were set have been fully met. The hydrological analysis provides important conclusions regarding the hydrology for the Dorset Area Study Lakes. The modelling demonstrated feasible approaches to obtaining streamflow simulations for the area. The details in this report will contribute significantly to the Acid Precipitation and Aquatic Effect Studies which are in progress.

It has been thoroughly enjoyable working with the Ontario Ministry of the Environment on this project and, should the opportunity arise, we would be pleased to provide services on this and other research.

Yours very sincerely,

Martin Goebel

Martin G. Goebel

MGG/afg
Encl.

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Preface

This final report was prepared by Martin Goebel Associates under contract to the Ontario Ministry of the Environment, purchase order number A 74369.

Acknowledgement

The author wishes to express his appreciation to Dr. L. A. Logan, representing the Ontario Ministry of the Environment, Water Resources Branch, for the contribution of ideas and support provided in preparation of this report. The author also sincerely thanks Mr. W.A. Scheider, Limnology and Toxicity Section for excellent cooperation in providing the data and information used in this study.

Directly involved in the research and preparation of this report were Dr. T.E. Unny, Professor, University of Waterloo, as technical advisor, and Mr. Sven T. Thaysen as technician, draftsman and data manager. Mrs. Anne F. Goebel carried out the bulk of the typing tasks. Their extra efforts are greatly appreciated.

TABLE OF CONTENTS

List of Tables

List of Figures

1.0 INTRODUCTION

This report is the third and final report of the Hydrological Analysis and Modelling Study carried out for the Acid Precipitation in Ontario Study (APIOS). This part entitled 'Dorset Area Watershed Modelling', contains the most important elements of the two previous interim reports by this author along with the results of further research. The previous reports were entitled 'Water Balance for Dorset Study Area Watershed Systems' and 'Harp Lake 1982 Snow Survey Analysis'.

As can be implied from the titles, a broad spectrum of hydrological analysis was provided for the APIOS study. While there is little mention of acid rain as such in this report, the problem of acid rain does not end at the precipitation stage. Indeed that is only the beginning because the ecological impact progresses from the numerous watersheds to the streams, rivers and lakes. Therefore, the problem of acid precipitation could appropriately be described as a problem in much of the hydrological cycle.

Many agencies and individuals, concerned about acid precipitation, have been involved in research and study of causes, effects and remedial measures for various aspects of the problem. In particular, the Ontario Government through its Ministry of the Environment, has initiated an intensive study in the Muskoka - Haliburton area of Ontario. The calibrated watershed study which deals with the aquatic effects of acid rain is one important part of the overall program.

The calibrated watershed study tackles the problem head on by obtaining as much scientific information and data as possible for selected lakes and their watersheds. This includes not only the monitoring of the chemistry and its

effects, but it also includes the measurement of streamflows into and out of the lakes. This intensity of investigation can only be carried out for a few small representative lakes.

The importance of the work reported herein lies in providing an understanding of the nature of the hydrology of the Dorset area. Because of the complexity of the hydrologic cycle additional data had to be brought into the study where it was not previously provided. This involves extrapolation and the use of suitable mathematical models. Thus it is possible to further analyze the hydrologic processes or to provide a check on previous observation. This is still not enough however. It is through the watershed modelling processes that the hydrologic understanding is formalized and tested.

Hydrologic modelling is also seen as a means of providing predictions and estimates of phenomena in both space and time. For instance streamflow estimates may be made to extend or complete historic records or to estimate future events. Alternatively predictions may be made for locations were there is little or no direct streamflow information. Eventually the hydrologic models will form an integral part of chemical budget models since water is a common element for acidic transport.

1.1 OBJECTIVES

The objectives of the work and research for this portion of the APIOS Study were to provide expert hydrological analysis and watershed modelling to fit into and interact with the aquatic and terrestrial effects studies currently in progress. The total effort was to clarify the widespread effects of acid precipitation through an understanding of the mechanisms involved and in particular reference to this report, to the hydrological aspects.

Specifically, the objectives for this study were as given in the Terms of Reference (as amended April 1, 1982) and are listed below:

1 - To develop and evaluate suitable watershed models as a complement to the ongoing aquatic effects studies.

2 - To calibrate, verify and validate these models and apply them in predicting flows as required in the calculation of chemical budgets of the six lakes. (These were Harp, Jerry, Dickie, Chub, Red Chalk and Blue Chalk Lakes, plus in addition the miscellaneous watersheds as in the Request For Proposal).

3 - To improve the snowmelt and spring runoff predictions by developing or modifying snowmelt routines used in the watershed models.

4 - To carry out water balance estimation for the Dorset Area lake watershed systems.

1.2 STUDY AREA

A study area for the Ontario Ministry of the Environment's calibrated watershed study was established in the Muskoka - Haliburton districts near Dorset Ontario. This region of the Canadian Shield is an important recreation and tourist area as it contains numerous lakes and is largely forest covered. Logging and other industries are also present.

Surficial geology consists of minor till plains, peat over sand and thin till with exposed ridges and bedrock. The bedrock is classified as paragneiss, migmatite and granitic gneiss. Shilts (1981) classifies much of the geology to be highly sensitive to acid precipitation with cation exchange on the clay and silt-sized detritus providing some buffering. The presence of localized carbonate found in several deeper soil pits (Griffith, 1982) would supply much more buffering.

Study lakes located in the study area and mentioned in this report are shown in Figures 1a and 1b. Meteorological stations are also shown on these maps.

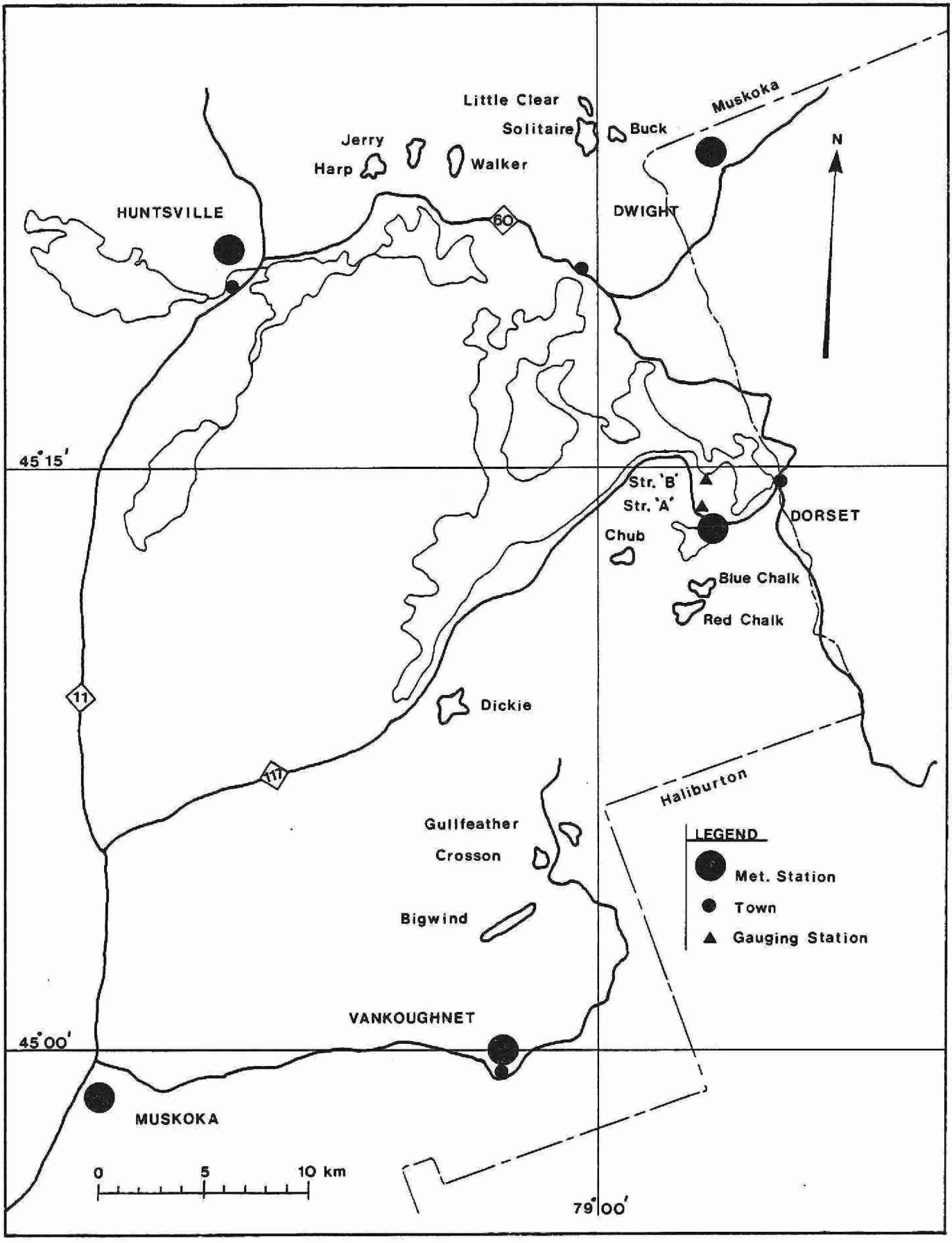


Figure 1a. Study Lakes and Meteorological Stations in the Dorset Area

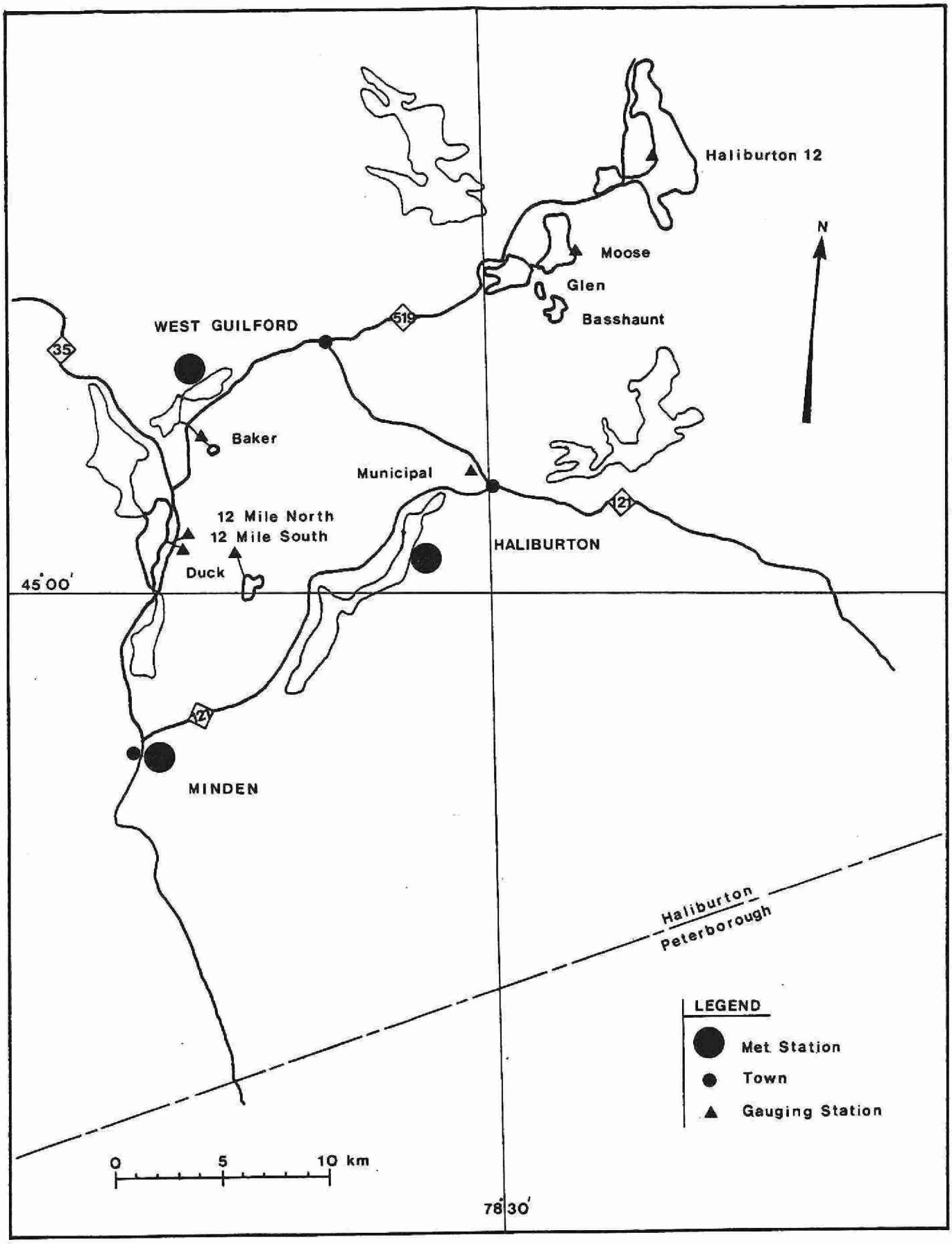


Figure 1b. Study Lakes and Meteorological Stations in the Dorset Area

2.0 SUMMARY OF MAJOR ANALYSIS AND MODELLING TASKS

The following is a list of topics covered by this report and the interim reports prepared under contract A 74369. Included under each heading are the major findings, results or conclusions.

1 - Watershed Moisture Budgets.

Accurate moisture budgets at the watershed level require information concerning streamflows, precipitation, evapotranspiration and changes in moisture storage. Only streamflows were measured directly; all other terms had to be estimated. Thus there was insufficient data to calculate a true residual term. The details of obtaining best estimates for the other terms are provided. Such estimates apply regionally. For instance precipitation estimates apply to all basins for a particular lake system because of the small distances between individual watersheds. Therefore, contrary to what was observed, large differences in watershed discharge were unexpected.

2 - Regional Precipitation Comparison.

Precipitation measured at 3 regional meteorological stations was found to differ significantly on both the short term (monthly) and the long term (4 year study period). Extrapolation of precipitation data to a calibrated watershed was done according to the nearest station criteria or according to an interpolation formula based on weighted distances.

3 - Runoff Estimation From Ungauged Watershed Areas.

Significant contributions of moisture to study lakes were expected from ungauged drainage areas. The amount of water involved was estimated by calculating the average contribution of water per unit area from gauged areas.

4 - Evapotranspiration Estimates.

The potential evapotranspiration estimates provided by Thornthwaite and Morton were found to be comparable. Actual evapotranspiration could only be estimated directly using Morton's model. These evapotranspiration estimates were compared to estimated drainage basin losses for the East River and were found to be very similar over the long term. Losses calculated for individual calibrated study watersheds varied in the same proportion as the streamflows, thus correction factors were required in later streamflow model calibration.

5 - Use of Robertson-Holmes Soil Moisture Budget.

The soil moisture budget technique was used to illustrate possible cyclical soil moisture behavior. The inavailability of specific soil data such as depth or waterholding capacity limited this analysis. For a reasonable range of hypothetical soil parameters it appears, however, that moisture recharge in the autumn completely satisfies the soil moisture capacity.

6 - Lake System Moisture Budgets.

Moisture budgets for lake systems involved estimated total inflows, direct precipitation, evaporation, observed outflows and observed changes in storage. Generally the estimated water balance was in deficit compared to the actual storage. Because there was no true residual term, only relative errors could be estimated.

7 - Lake Evaporation Using Morton's Model.

Lake evaporation estimates were compared with similar estimates obtained using an energy balance approach. There was good agreement between the two estimates. Morton's model operates only on routinely measured meteorological data, and is thus applicable for use regionally. There is no need to obtain any lake data to operate Morton's model.

8 - Stage - Discharge Relationships.

Theoretical stage - discharge relationships provided a means of examining lake outflows as a function of lake water levels. This analysis revealed considerable scatter of data points from an ideal curve. Thus, there is some concern that at high water levels the range of possible outflows is too large.

9 - Analysis of Harp Lake Snow Survey Data.

Snow survey data obtained for Harp Lake was thoroughly analyzed. Comparisons were made with other stations and the data proved to be consistent. Analysis of variance tests indicate no significant differences in snowpack changes on account of different sampling locations within the basin.

10 - Modification of Temperature Index Snowmelt Model.

The snow survey data was used to locally calibrate a temperature index snowmelt model. Included in the model is a water retention feature. The degree of fit between the model and the observed was considered to be very good.

11 - Preparation of MOEHYDR Snowmelt Model.

This snowmelt model had extensive data requirements. Meeting those requirements involved extrapolation of meteorological data from outside the study area. Until better local data becomes available the simple temperature index snowmelt model is considered appropriate for further modelling use.

12 - Use of Snowmelt Model for Streamflow Simulation.

The temperature index snowmelt model was used as a subroutine in the TVA model, a continuous daily streamflow model. Some under estimation of the principal spring runoff peak occurred for most simulations. The timing of simulated flow events result from simulated snowmelts. These in turn generally corresponded to observed flows. It was noted that flows per unit area ranged from 223.9 mm to 513.8 mm over the 7 month analysis period.

13 - Calibration of TVA Continuous Daily Streamflow Model.

TVA model calibrations were carried out using 3 years of observed streamflow data from 21 watersheds for 6 of the so called A-lakes. Nine model ~~model~~ parameters were estimated for each watershed. The overall response of the model was evaluated by comparing observed and simulated streamflows and was considered acceptable. However, for most watersheds there was poor simulation for the 1978 winter runoff period. The problem here appears to relate to the comparatively late occurrence of spring snowmelt and the fact that the TVA model uses the same dates for changes in season. Calibration on a one year basis would eliminate the problem but then each year would have a different set of model parameters.

14 - Streamflow Simulation to Extend Existing Records.

The TVA model was applied as a simulation model for an 8 month period at all A-lake watersheds. This involved predicting streamflows using the same model parameters as obtained in each calibration. Observed streamflows for the same period were compared to the results. Overall correlation coefficients ranged from 0.549 to 0.890. Further comparisons were made, including a comparison to an alternative model using the same meterological data reduced to monthly values. The TVA model output had to be reduced to monthly data as well. The performance of the TVA model was marginally better.

15 - TVA Model Parameter Estimation.

Estimation of TVA model parameters is required for model application in ungauged watersheds. Physical and geological data relating to the calibrated watersheds were used as the independent variables in multiple linear regression analysis to find meaningful relationships for the model parameters. The only rational regression equations obtained were for estimating the surface runoff parameters and the soil permeability parameter. The other TVA model parameters could not be correlated adequately with any physical watershed properties. However, these parameters are safely estimated using the mean values obtained from calibration. Relationships between the model parameters provided additional insight.

16 - Streamflow Simulation for Ungauged Watersheds.

Streamflow simulation was carried out for 8 watersheds as if they were ungauged. Comparisons with the actual streamflows showed that the methodology developed to estimate TVA model parameters was satisfactory in that the simulated flows agreed with the observed to the same extent as in the calibration of

The TVA model. Predictions for 1978 spring runoff were weak to a similar extent as in the calibration. Annual flows for the other years had correlation coefficients ranging from 0.602 to 0.908. The methodology was then extended to provide streamflow predictions for 32 B-lake watersheds.

3.0 WATER BALANCE FOR DORSET STUDY AREA WATERSHEDS

The first part of this project involved the calculation of water budgets for six Dorset Area study lakes (A-lakes) and their 21 watersheds. (See Figures 2, 3 and 4). The six study lakes are Harp Lake, Jerry Lake, Dickie Lake, Chub Lake, Red Chalk Lake and Blue Chalk Lake. The investigation period was for June 1, 1976 to May 31, 1980. Each term in the water balance equation (1) was analyzed and discussed in terms of data availability and significance to the overall budget.

$$Q = P - E + \Delta S \qquad (1)$$

where:
- Q = monthly observed watershed discharge
- P = monthly precipitation
- E = monthly evapotranspiration
- ΔS = change in storage

Only the first term (Q) in the above equation was measured directly for the watershed involved. The other terms were estimated using appropriate techniques.

3.1 WATERSHED DISCHARGES

Daily streamflow data from the various study basins were provided by the Ministry of the Environment. These were reduced to monthly data for this analysis. Drainage areas for the streams are very small, ranging in size from 0.073 to 6.663 square km. Spring runoff contributes the bulk of the total flow. Smaller streams tended to dry up over the summer months.

The discharges being the only directly measured hydrologic component, were assumed to be the most accurate term in the water balance equations. Whether this assumption

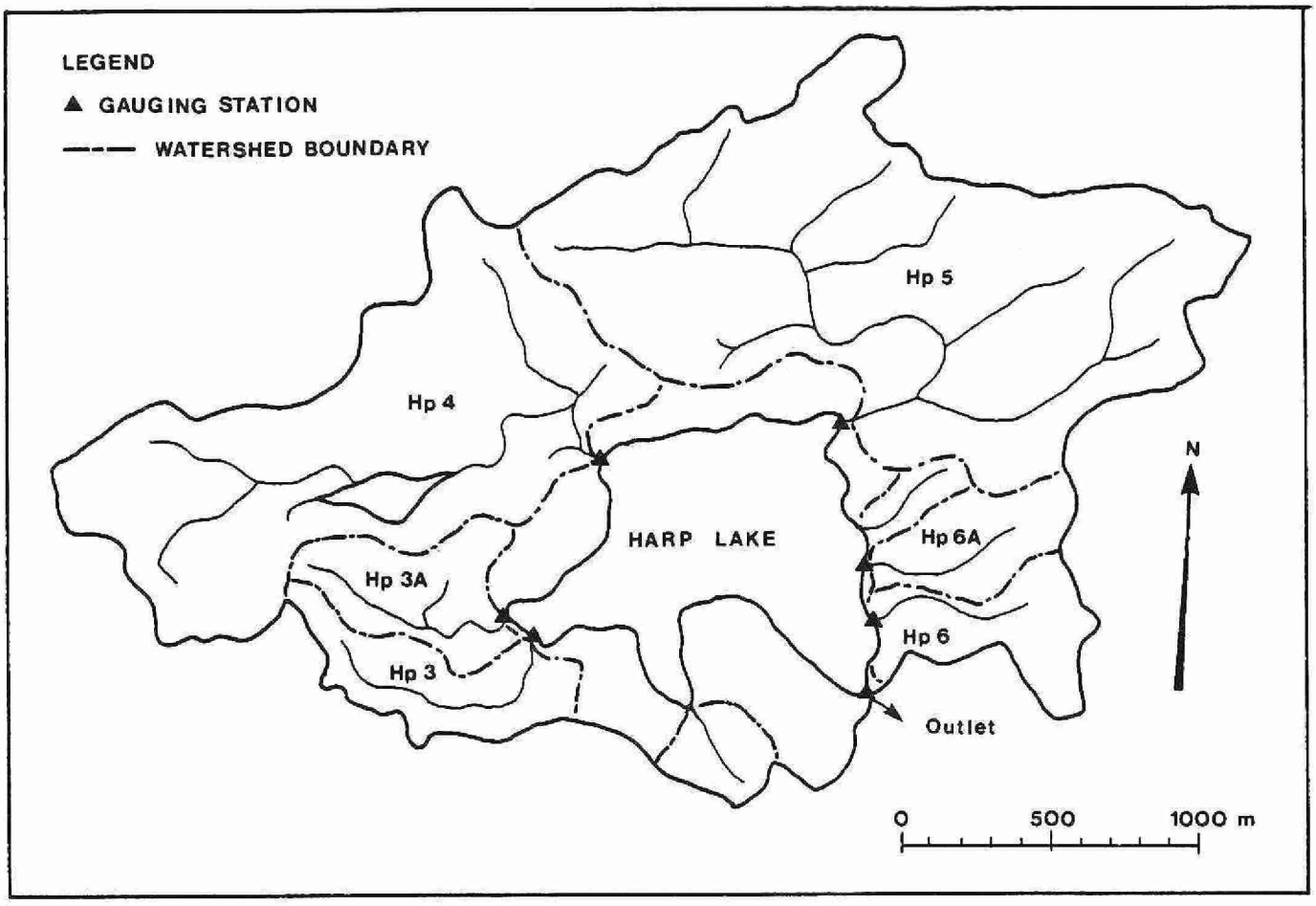


Figure 2. Drainage System for Harp Lake

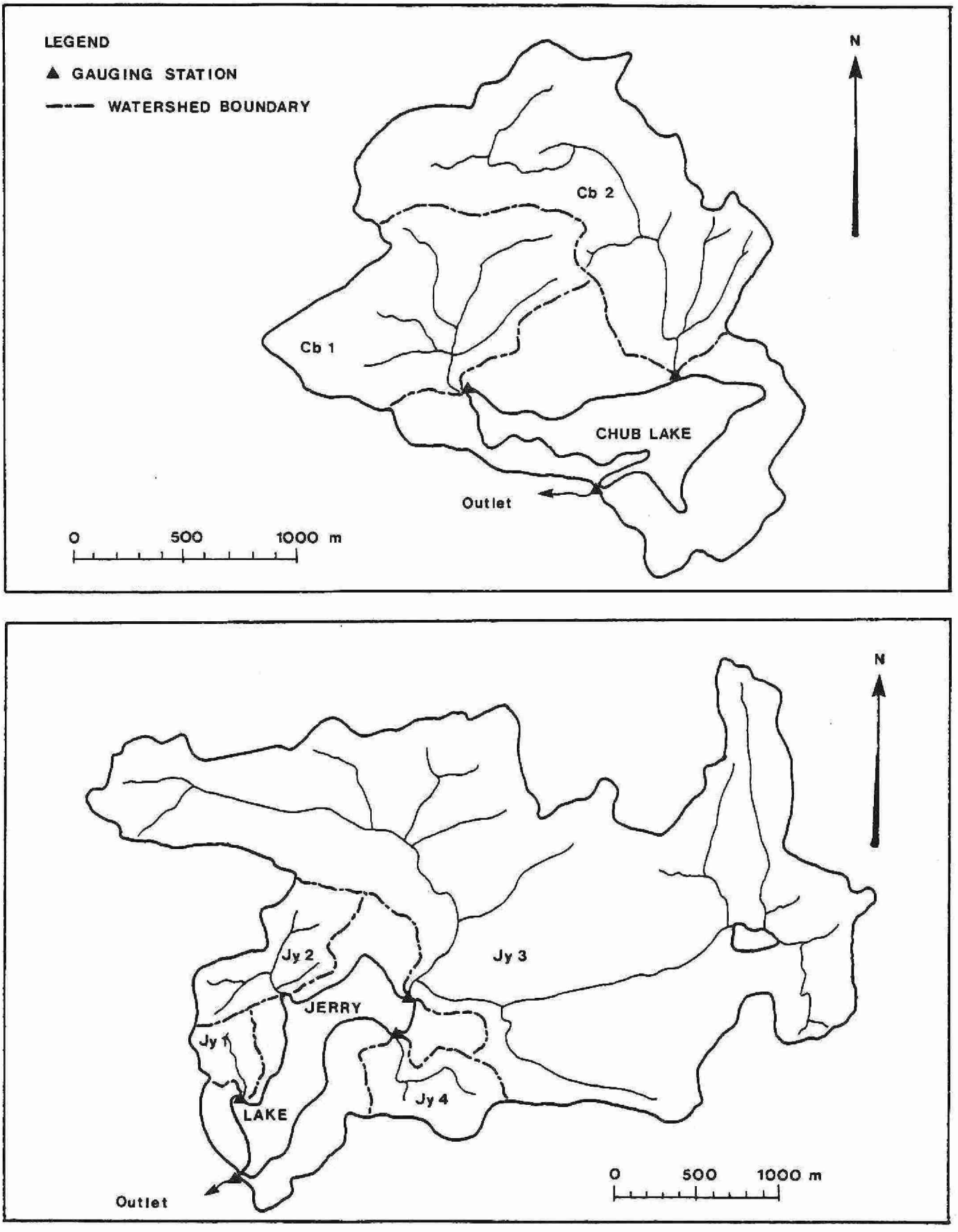


Figure 3. Drainage System for Chub and Jerry Lakes

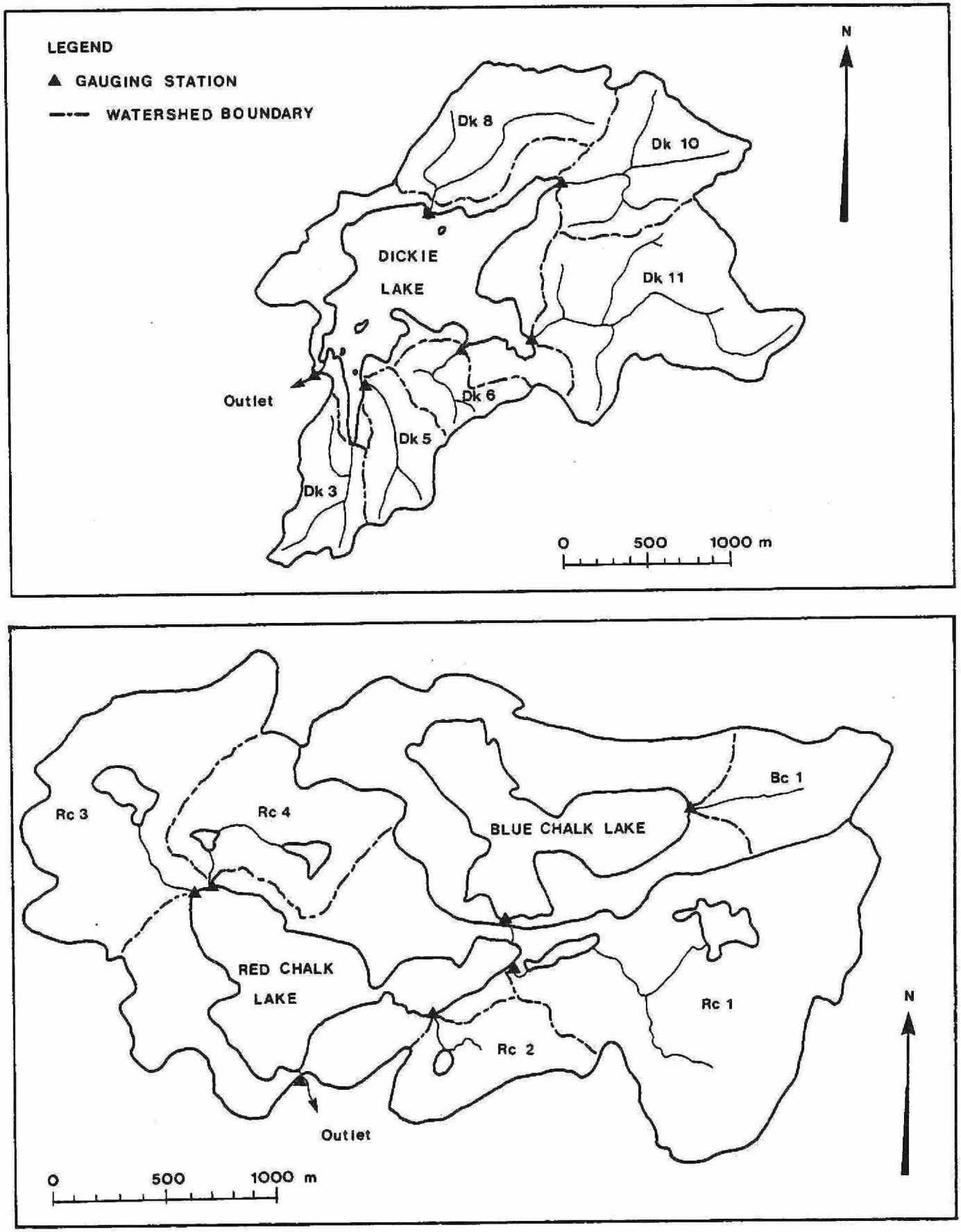


Figure 4. Drainage System for Dickie, Red Chalk and Blue Chalk Lakes

was correct is in doubt because there are wide differences in total annual flows even between neighbouring basins. Blue Chalk Watershed 1 had the lowest recorded flows of 1140.4 mm over the 4 year study period, whereas Dickie Lake Watershed 10 had over twice as much discharge (2321.2 mm) during the same period. Such range of streamflow is difficult to explain on any physical basis, and indeed streamflows appear to be uncorrelated to the physical and geological data available.

In addition to measured inflows, ungauged areas representing 14 to 79% of total lake watershed area contribute water to the lakes. This discharge was estimated by taking the average depth of flow at each lake system and applying it to the ungauged areas:

$$Q_{un} = \sum_{i=1}^{n} \left[\frac{Q_i \ / \ AREA_i}{n} \right] \times AREA_{un} \qquad (2)$$

where Q_{un} = estimated flow from ungauged areas (1/s)
Q_i = observed flow from gauged area i (1/s)
n = number of gauged watersheds at the lake
AREA = drainage area (square kilometers)

For Blue Chalk Lake, which has only one gauged basin, data from the four Red Chalk basins were included in the calculation. The outflow from Blue Chalk Lake flows into Red Chalk Lake. This outflow was not included in the estimated ungauged drainage for Red Chalk Lake. All of the monthly discharge data is given in Appendix A. The units were converted to millimetres per unit area.

3.2 PRECIPITATION

Precipitation data required in the water balance calculations was estimated by two methods depending on the lake location. For Chub, Red Chalk and Blue Chalk Lakes the precipitation measured at the nearest station (Dorset) was assumed to apply at those lakes. For Harp and Jerry Lakes precipitation was estimated by calculating an average from Huntsville and Dwight weighted according to the reciprocal of the distance squared. For Dickie Lake, precipitation data from Huntsville and Dorset were used.

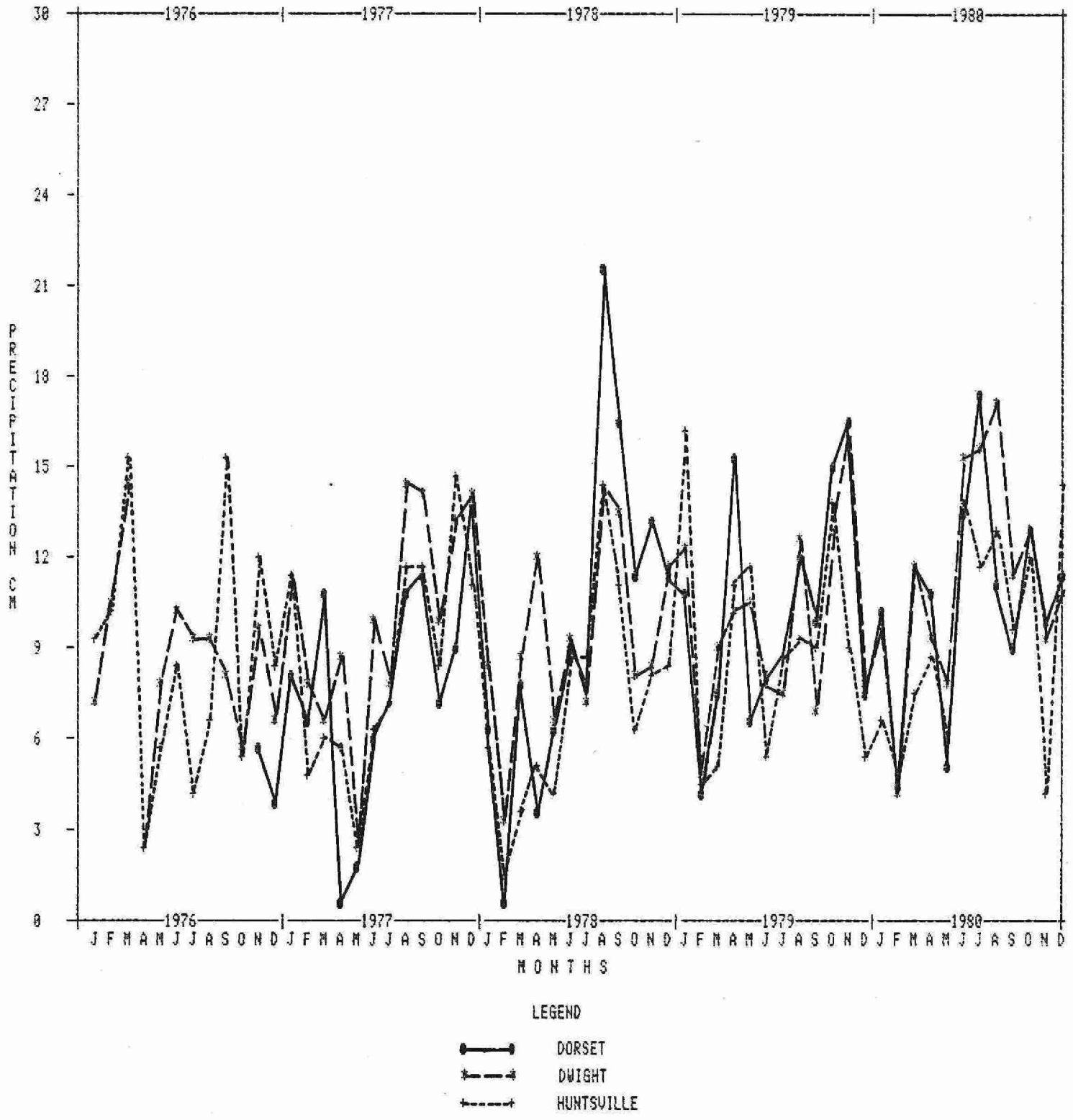
The weighting technique (3) assumes that nearer meteorological stations are more representative. However any averaging has the one disadvantage that extremes in precipitation are 'smoothed' (Linsley, Kohler, Paulhus, 1982) in comparison to the index stations.

$$P_i' = \sum_{j}^{2} \frac{P_{ij} \times W_j}{\sum W_j} \qquad (3)$$

where
P_i' = precipitation estimated for month i
P_{ij} = precipitation month i, location j
W_j = weighting factor = $1/D_j \times D_j$
D_j = distance to station j

A comparison of monthly precipitation from the three area meteorological stations reveals considerable variability. (See Figure 5). The records show that Dwight receives approximately 15% more precipitation annually than Huntsville and Dorset about 8% more than Huntsville. The variability for any month is greater and is estimated to average approximately 20%.

One may therefore assume that a similar variability is



DORSET STUDY AREA PRECIPITATION COMPARISON

Figure 5.

inherent in the actual precipitation occuring some distance from any station ie. at the various lakes. On the other hand it is unlikely that significant precipitation differences exist at the watershed level because the separation distances are small.

3.3 EVAPOTRANSPIRATION

The evapotranspiration component in the water balance equation represents approximately 50% of the moisture export from the watersheds. It is therefore as important as the streamflows in the hydrologic cycle. In the absence of neutralizing processes, this implies that the concentration of chemical input to watersheds from precipitation can effectively double after moisture is removed by evapotranspiration. Unfortunately direct measurement of evapotranspiration is possible only on an experimental basis. Indirect methods of determining this hydrologic component were used.

The simplest method of calculating evapotranspiration is to consider it as the residual term in the water balance equation (1). If calculated this way evapotranspiration is commonly referred to as a loss. Of course the other terms in the equation must be known. Any uncertainty of errors will be carried in the evapotranspiration term. In particular, the change in storage term is also unknown. To get by this problem the next section will show that an assumption of zero change in storage is valid over extended periods provided the periods cover an entire year and that the year begins in the fall. Losses therefore can only safely represent evapotranspiration on an annual or longer basis.

The other method of obtaining evapotranspiration estimates is to use mathematical models developed and verified

previously and apply them in the Dorset area study. These models operate on other routinely available meteorological data. Two such models were used.

The first model used was developed by Thornthwaite (1948) and gives potential evapotranspiration estimates based on a simple relationship involving mean monthly air temperatures. A definition of potential evapotranspiration is the amount of evapotranspiration possible if the supply of water is unlimited. Since there is generally not enough water available, especially during the summer months, the actual evapotranspiration must be less. To estimate this amount, a soil moisture budget technique developed by Holmes and Robertson (1960) was used.

The second model used to estimate evapotranspiration was one developed by Morton (1980). It incorporates concepts of Penman (1948), and Priestly and Taylor (1972) as well as constants derived earlier (Morton, 1978, 1976). Data required to execute the model includes air temperature, dew point temperature, sunshine ratios, latitude, average annual precipitation and average atmospheric pressure.

Morton's unique definition of potential evapotranspiration is that the potential is an effect of the actual evapotranspiration rather than the cause. Thus actual evapotranspiration is calculated iteratively by solving:

$$\delta E_a + \delta E_p = 0 \qquad (4)$$

where: δE_a = Change in areal evap. caused by a change in the availability of water

δE_p = resultant change in potential evap.

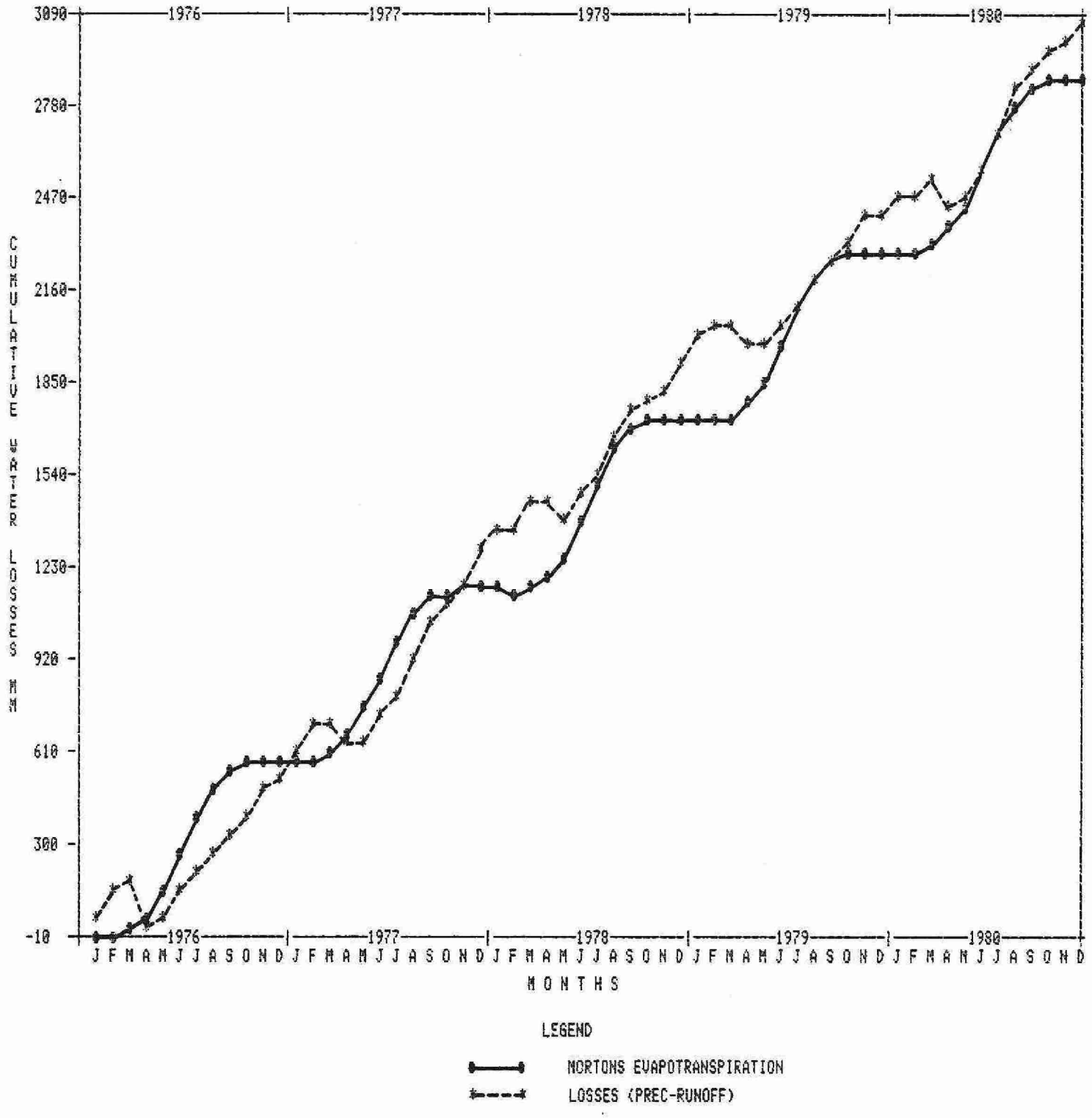
Note that complex soil and vegetative interactions are not actually required to estimate actual evapotranspiration.

Several comparisons of the evapotranspiration models were made. The most important one compared the results of Morton's model with losses at the East River on a long term cumulative basis (Figure 6). Flows for this river, measured at Station No. 02EB013, represent discharge from 593 sq. km. As expected monthly losses differ from Morton's evapotranspiration estimates because of the seasonal shift caused by snowpack storage. However there is very good agreement between the models in the long run. The difference was 7% over the 5 year period.

3.4 SOIL MOISTURE STORAGE

The Robertson - Holmes soil moisture budget technique provided a crude means of estimating soil moisture changes. The technique requires an initial estimate of soil moisture as well as a soil moisture capacity estimate. Neither data were directly available from field measurements. Soil maps (Agriculture Canada) give average soil depth to bedrock as approximately 30 cm. It is recognized that the soil depth is in fact highly variable in the study area. Commonly the depth ranges from zero (exposed bedrock) to soil pockets several meters deep. The soil moisture capacity also depends on the volume of voids in the soil. A conservative estimate of soil moisture capacity would be approximately 10 cm. a value also used by Brown, McKay and Chapman (1980).

Initial soil moisture storage estimates for January 1 of any year were simply saturation of the capacity. This assumption is considered valid because for all soil moisture budget calculations made using a range of soil moisture capacities, it was found that precipitation in the autumn was always sufficient to return the soil moisture to saturation levels.



CUMULATIVE LOSSES & EVAP. FOR EAST RIVER

Figure 6.

In calculating soil moisture changes, water required to meet potential evapotranspiration was first satisfied by precipitation. If water remained it was added to the soil moisture. Water in excess of the soil moisture capacity is termed soil moisture surplus and it represents water available for runoff and groundwater recharge. If however, the precipitation does not meet the potential evapotranspiration requirement, then water is taken from soil moisture storage. The actual amount removed is determined according to the curves shown in Figure 7. The percentage of soil moisture removed is a percentage of moisture actually present.

Qualitative results of the soil moisture budgeting technique were that changes in soil moisture storage occurred only over the summer period. The amount of moisture depletion depended on the capacity of the soil. Assuming a low soil moisture capacity of say 5 cm could result in complete moisture depletion. On the other hand a high capacity (30 cm) could result in a maximum depletion of 12.8 cm. It is also evident from this analysis that 1980 could be regarded as a wet year in that moisture depletion was significantly lower than in other years. Figure 8 illustrates results for Harp Lake. Application of the model at other lakes gave similar results.

An important secondary result of the soil moisture budget technique is the estimated actual evapotranspiration. This estimate varies with the soil moisture capacity because this affects the amount of water available. Estimates of evapotranspiration ranged from 1824 to 2147 mm (over 4 years) for soil moisture capacities ranging from 5 to 30 cm. In comparison to estimated watershed losses this range was exceeded by 15 watersheds (including the East River) and was less at 2 watersheds. (See Figure 9).

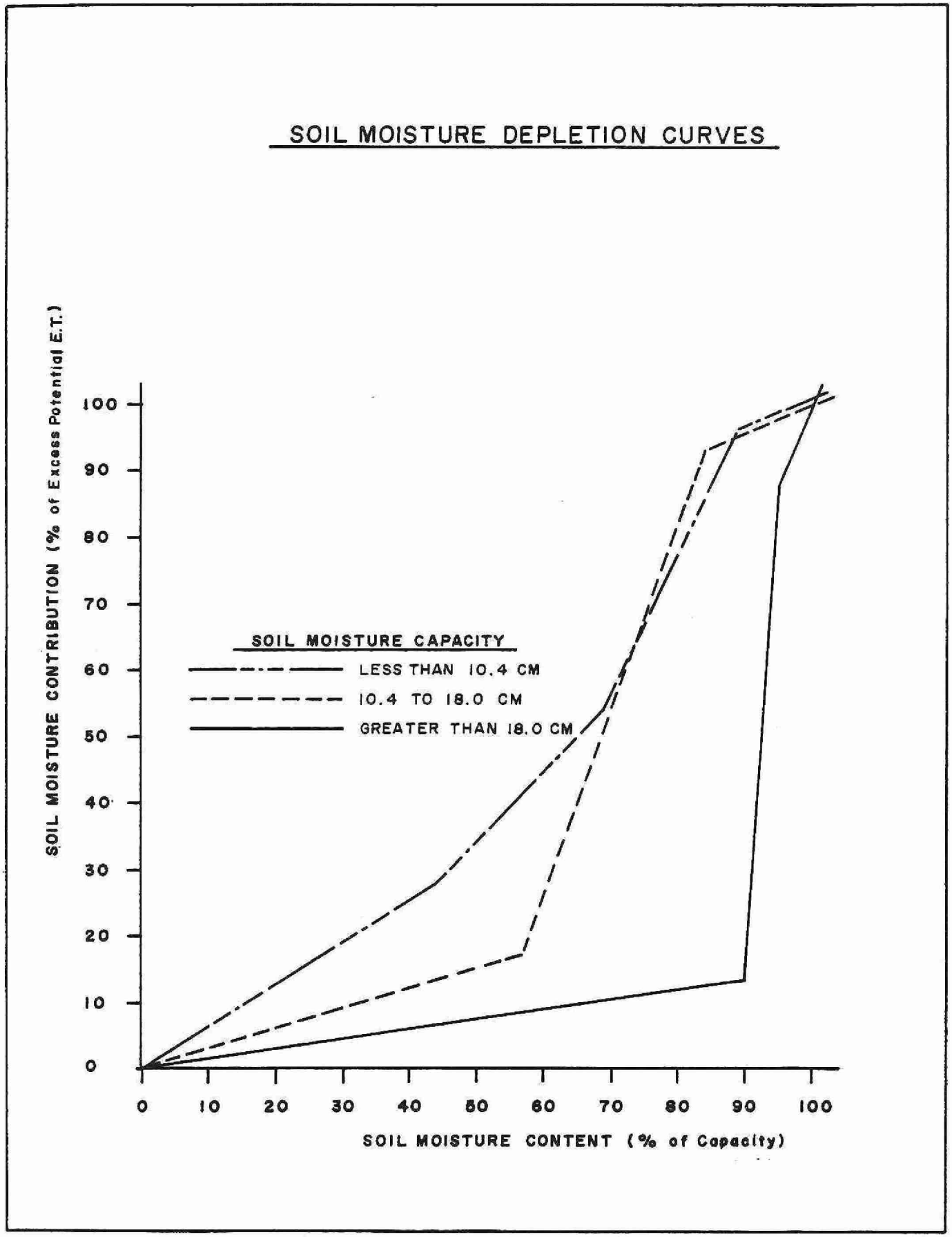


Figure 7. Soil Moisture Depletion Curves

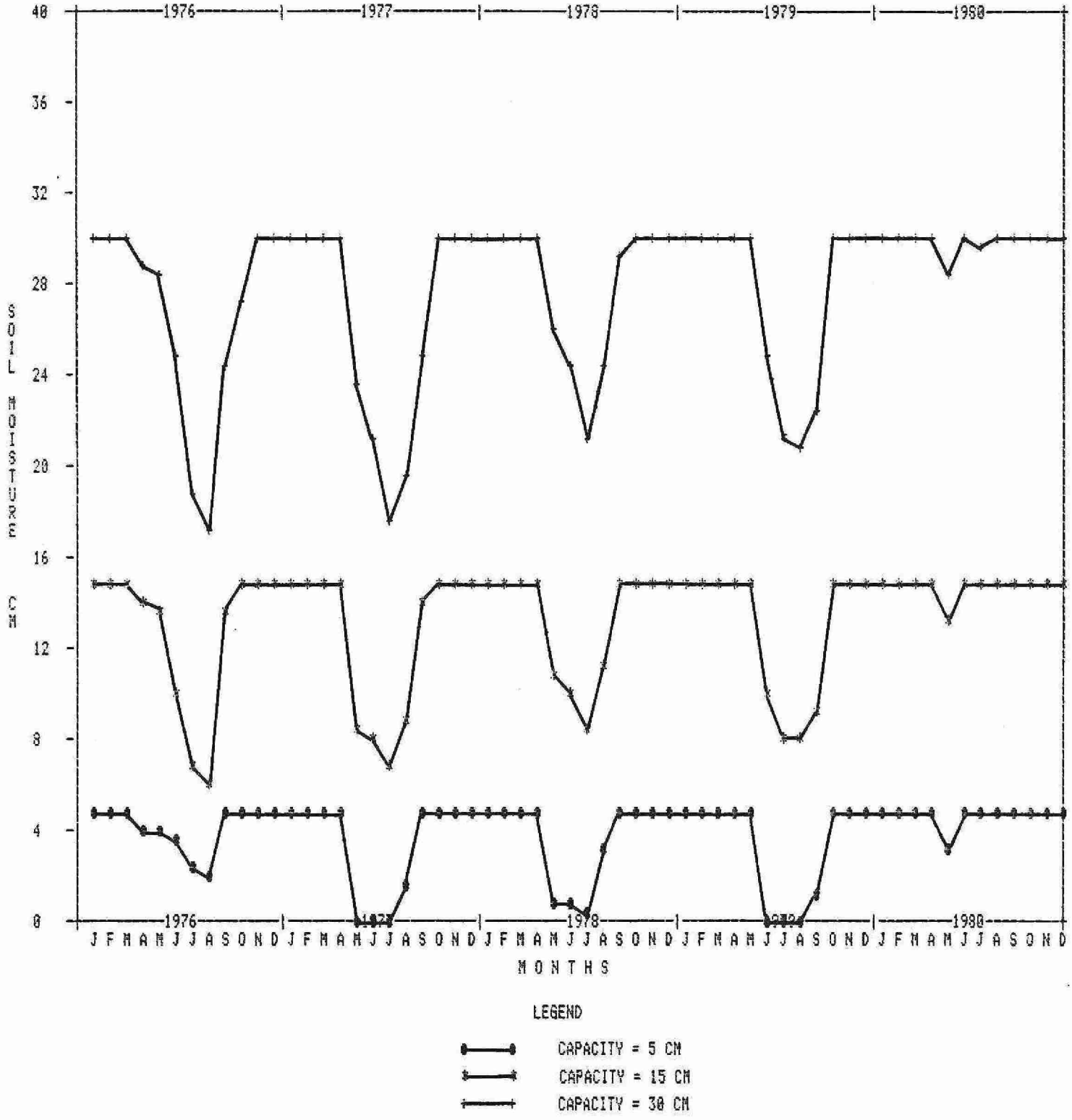
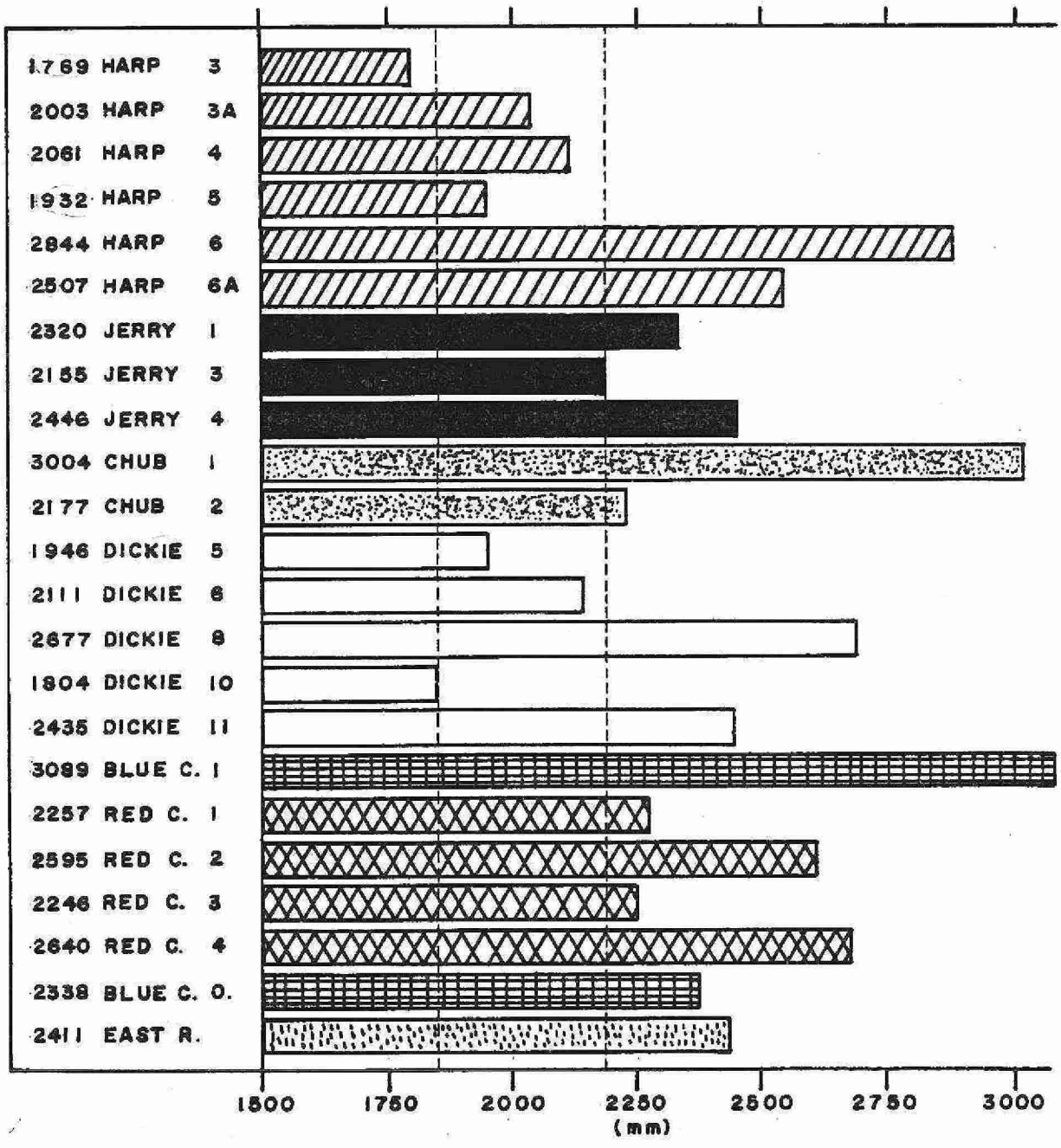


Figure 8. SOIL MOISTURES AT HARP LAKE



WATERSHED LOSSES

Lower and upper limits of 4 year watershed losses explained by soil moisture budget.

Figure 9. Watershed Losses

It is also worth noting that a soil moisture capacity near 15 cm forces equality of the evapotranspiration estimate with that of Morton's model.

4.0 WATER BALANCE FOR LAKE SYSTEMS

This portion of the study involved an analysis of the water budget for the lake systems as a whole. Analyses were based on monthly, yearly or four year totals of the data. As in the previous chapter a water balance equation was assumed and each term was examined in detail:

$$\Delta S = P + Q - E - O \qquad (5)$$

where: ΔS = change in lake storage (water level)
P = monthly precipitation on lake surface
Q = total inflows (gauged + ungauged)
E = monthly lake evaporation
O = observed outflow

In one form or another there was sufficient data to compare the observed storage changes with the right hand side of the above equation. The best balance was achieved for Dickie Lake. All other lakes had large estimated storage deficits, that is, exports exceeded imports. Table 1 shows the annual and total difference between observed and calculated lake storage. Table 2 was prepared to show the relative error produced by each of the input or output terms. The table expresses errors as a percentage correction required to balance the water budget assuming all other terms (including the observed storages) to be absolutely correct.

4.1 LAKE STORAGES

Lake storages were derived for the six study lakes by calculating the change in volume of water represented by a change in water level. The water levels were measured using staff gauges at roughly one week intervals. The records are incomplete over the winter months. The lake surface area used

Table 1. Differences Between Annual Observed and Calculated Lake Storages

Lake	1976	1977	1978	1979	1980	Net
Harp	37	-439	370	868	-75	762
Jerry	-180	381	46	1543	-968	822
Dickie	----	118	-5	-82	-188	-155
Chub	----	354	-40	870	425	1612
Red Chalk	----	211	-102	1132	522	1763
Blue Chalk	-20	265	231	500	241	1219

Note: All values in mm/unit lake area

Table 2. Percentage Correction Required to Balance Lake Water Budgets

Lake	Precip.	Total Inflow	Outflow	Evaporation
Harp	+19.4	+5.1	-4.5	-28.5
Jerry	+20.9	+2.6	-2.4	-32.7
Dickie	-4.7	-2.1	+1.8	+7.4
Chub	+46.3	+12.0	-9.9	-70.2
Red Chalk	+51.9	+10.9	-9.2	-90.2
Blue Chalk	+29.4	+30.5	-18.1	-45.3

to estimate volume was not corrected for shoreline slope because the estimated error involved was less than one percent.

The error involved in observing storage changes was presumed to be the least significant relative to the other terms. This view is held because observed seasonal fluctuation in water level does not approach the magnitude of the calculated storage deficit.

4.2 PRECIPITATION

The depth of precipitation falling directly on the lake surface was estimated using the same procedure described earlier (equation 2). At Harp Lake a bulk precipitation collector was placed on a raft and the amount of precipitation was measured at irregular intervals. The total measured precipitation over the analysis period was 28% less than the comparable estimate using the meteorological station data. The deficit was largely due to winter precipitation events It is likely that some snow is wind swept from the ice surface. Collector inefficiency is also partly to blame.

Unfortunately, using the lower precipitation estimate provided by the bulk collector would indicate an even greater storage deficit.

4.3 LAKE INFLOWS

The inflows to the lakes were calculated by adding up the discharges as observed from each watershed and adding the estimated contribution from ungauged areas. It is possible that there are additional inputs from direct groundwater flow but are not accounted for.

To balance the moisture budget for all but Dickie Lake would require that flows be increased or conversely that inflows are currently underestimated. Part of this error may stem from estimating runoff from ungauged areas. In particular at Blue Chalk Lake this may be the case because the ungauged areas are larger than the gauged. The observed flows at Blue Chalk Lake, being the lowest of all watersheds, compounds the problem.

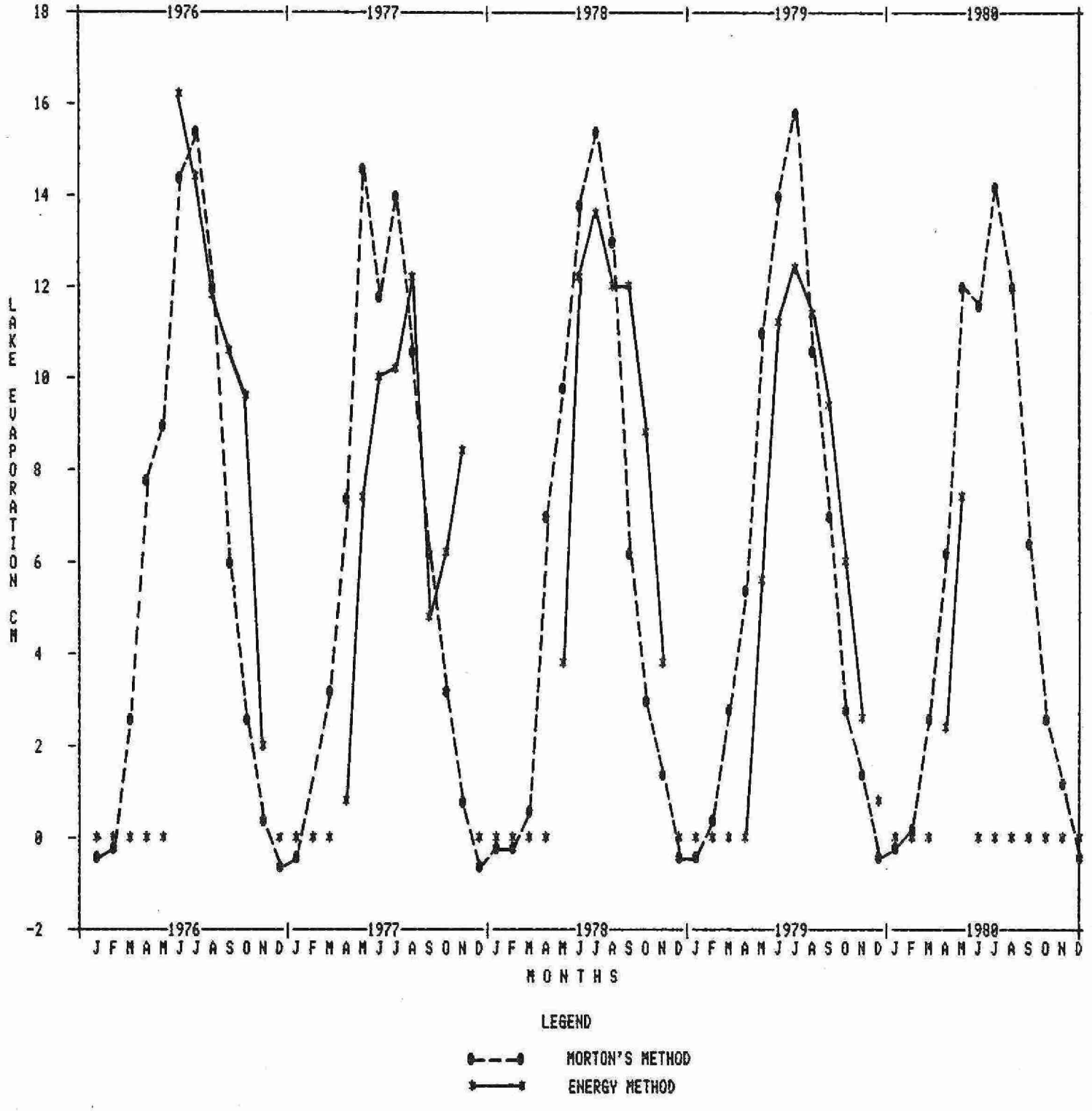
4.4 LAKE EVAPORATION

Two methods were used to estimate lake evaporation. One was based on the use of an energy balance method, the other was an adaptation of Morton's model WEVAP (1980). The two methods proved to be comparable, although Morton's method gave 5% higher estimates on the average. Lake evaporation estimated using Morton's method is compared to energy balance estimates in Figure 10. Both methods gave results consistent with other published lake evaporation estimates for the area (Ferguson, O'Neill and Cork, 1980).

To explain the calculated moisture storage deficit by an error in estimating lake evaporation using Morton's model, would imply that evaporation was over estimated by between 28.5 and 90.2%.

4.5 LAKE OUTFLOWS

Lake outflows pass through gauging weirs similar to those used to measure inflows. These weirs provide the control of flow from the lake except under ice conditions or other obstruction. As an independent check on the data quality, stage-discharge curves were fitted using least squares. This method was applied only where certain criteria regarding



LAKE EVAPORATION COMPARISON

Figure 10.

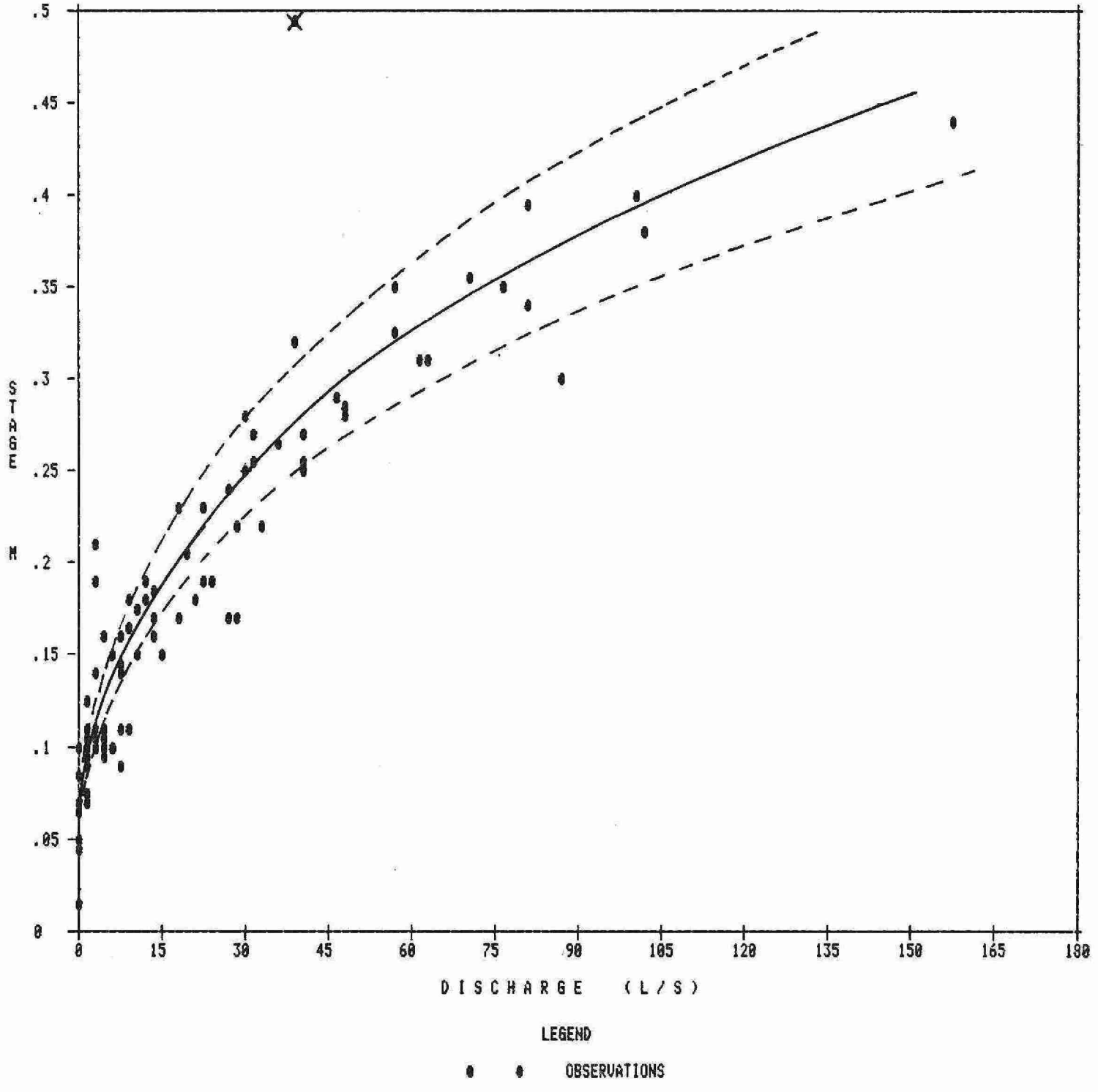
theoretical stage-discharge relationships existed. In the analysis it was discovered that there was significant scatter in the data. The best curve was found for Chub Lake (Figure 11). Some of this scatter may account for the water deficit due to possible weir calibration errors for higher flows.

4.6 DISCUSSION

The water balance calculations for lake systems are based on observed data for outflows and lake storages. Inflows to the lakes are partially observed in that the total contribution must include flow estimates from ungauged areas. Precipitation and lake evaporation are entirely estimated using interpolation methods and mathematical models.

Because there is no residual term, Table 2 is an important result. It gives the amount of correction required in each hydrologic component to explain the error in estimating the observed storages individually. Of course there may be partial errors in each term. Relative to each other, the correction factors give some insight to this. Precipitation and lake evaporation would require relatively large adjustments to explain the water deficits. In fact at Chub and Red Chalk Lake the additional amount of precipitation needed would seem impossible especially since precipitation is likely overestimated considering that snow seems to accumulate less on lakes surfaces. Similarly evaporation would have to be very small and entirely in disagreement with other findings.

Flows on the other hand, provide relatively larger amounts of water to the moisture budget. Thus their potential for error is more certain. For instance a small bias in outflow measurement would produce significant water budget errors over a long period.



CHUB LAKE STAGE-DISCHARGE

Figure 11.

5.0 HARP LAKE 1982 SNOW SURVEY ANALYSIS

The second part of this project provided a thorough examination of results of the snow survey conducted by the Ontario Ministry of the Environment at Harp Lake in the Winter of 1982. The snow survey was designed to provide detailed data pertaining to the accumulation and depletion of the snow. This in turn allowed for an independent method of estimating and modelling the watershed contribution to spring runoff. Spring runoff is especially significant because:

1 - It provides the bulk of the annual watershed discharge to the lakes.

2 - The contribution to acidification is particularly pronounced (Jeffries, Cox and Dillon, 1979).

The snow survey was conducted in four snow courses laid out in Harp Lake watershed numbers 3-3a, 4, 5 and 6-6a. Each snow course had six sampling sites which were selected in the previous fall. The survey consisted of periodically measuring the depth and water equivalent of snow at each site. The snowpack density was calculated from these observations. Secondary meteorological data such as daily temperature and precipitation were obtained from the nearby Huntsville and Dwight meteorological stations. Interpolation methods described previously were applied to derive data for Harp Lake.

The behavior of the snowpack is illustrated using the mean snowpack water equivalent in Figures 12a and 12b. Also shown are the estimated daily precipitation amounts and the range of daily temperatures.

Analysis of variance tests were conducted using both the snow depth and the water equivalent data. Results are given in Table 3. The main conclusion reached was that there were

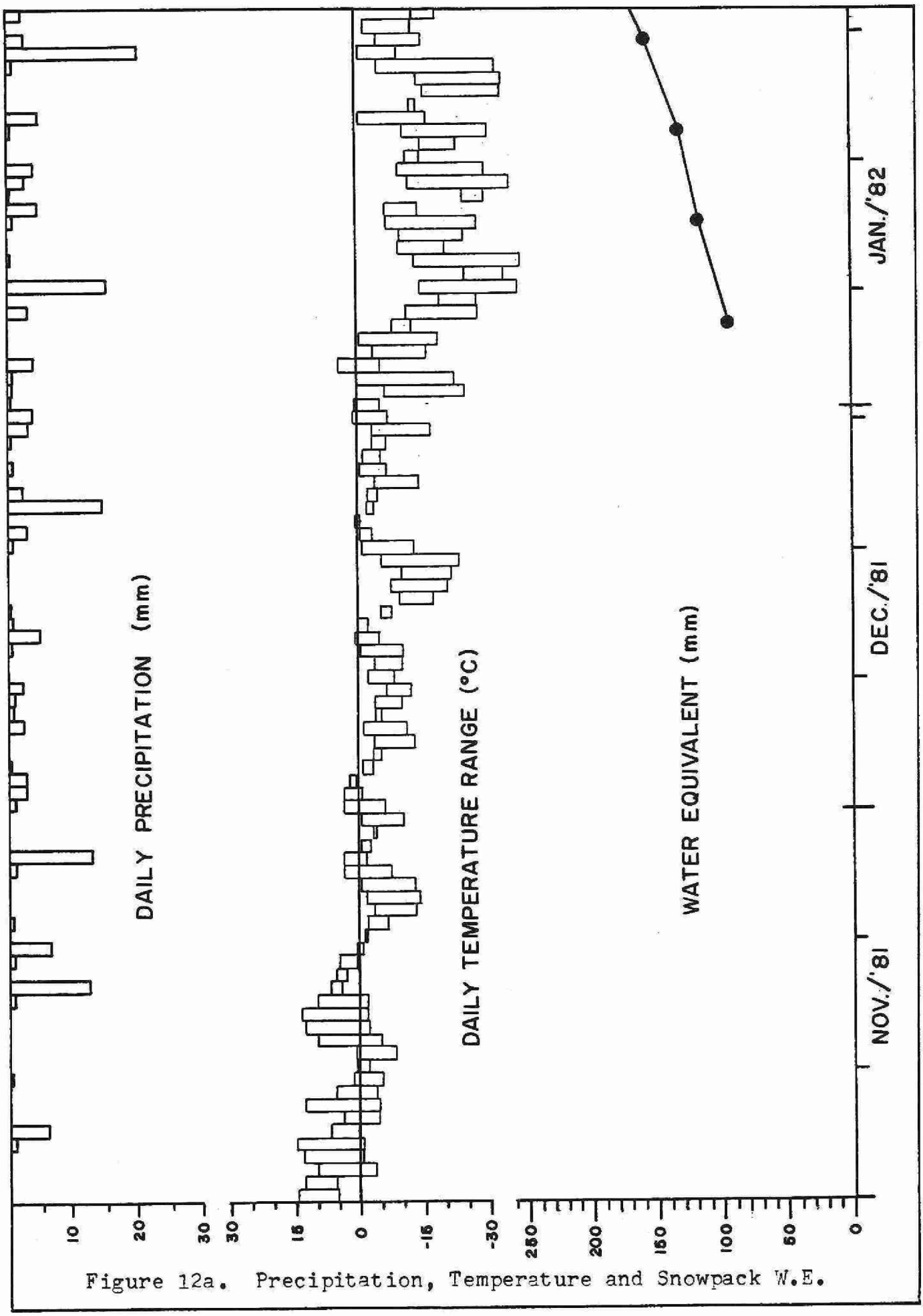


Figure 12a. Precipitation, Temperature and Snowpack W.E.

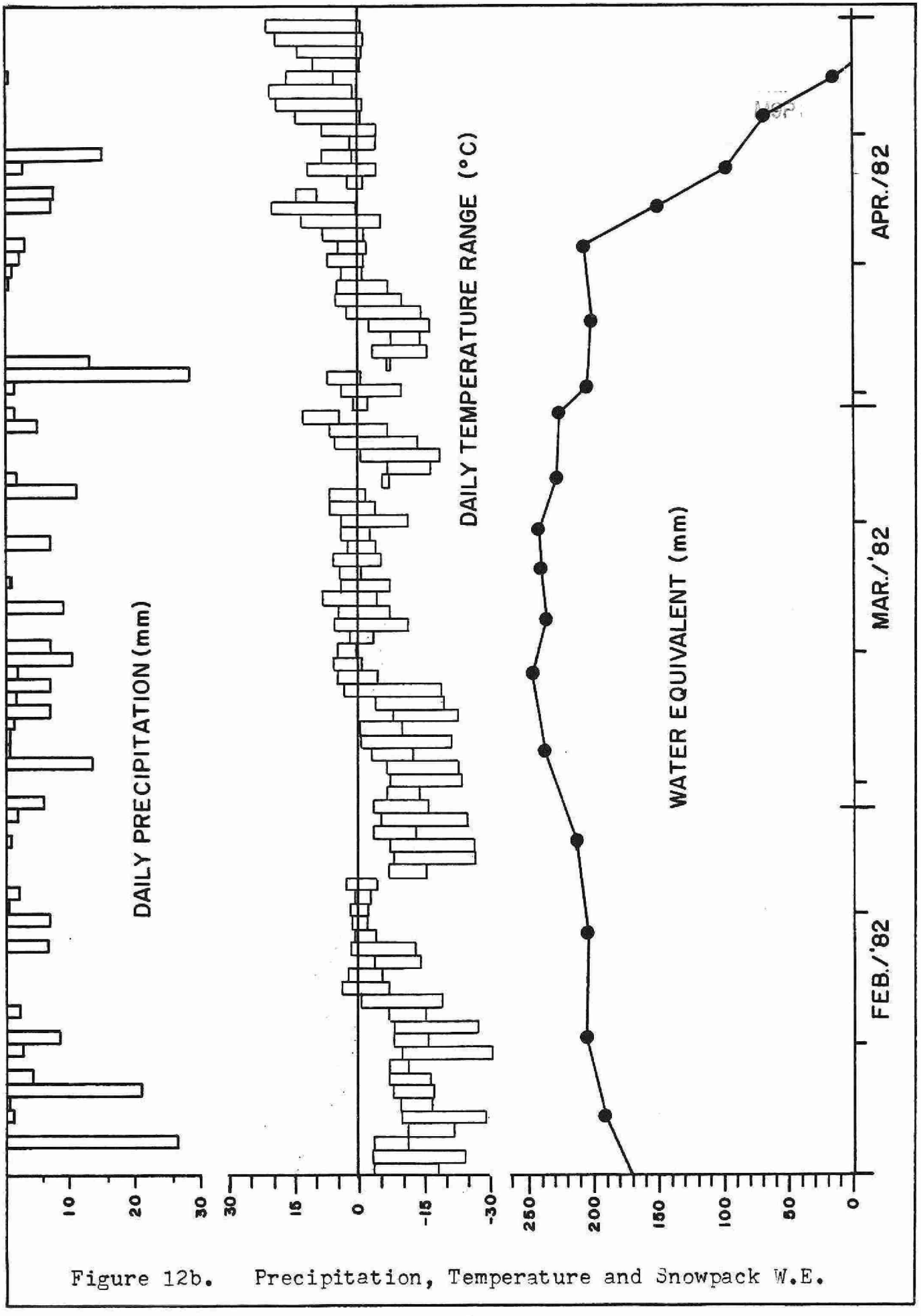


Figure 12b. Precipitation, Temperature and Snowpack W.E.

Table 3. Results of Analysis of Variance
For Changes in Snowpack at Harp Lake

Dates	F-Ratio For Change In Snow Depth	F-Ratio For Change In Water Equivalent
Initial	5.4179	5.6674
Jan 15-22	1.053	0.7691
Jan 22-29	2.2264	1.229
Jan 29-Feb 5	1.5174	3.2991
Feb 5-11	0.6719	2.7726
Feb 11-19	2.9606	5.297
Feb 19-26	3.0888	6.7495
Feb 26-Mar 5	0.4092	0.9223
Mar 5-11	0.2787	0.4547
Mar 11-15	2.3427	1.3611
Mar 15-19	2.5626	0.946
Mar 19-22	1.9309	0.2477
Mar 22-26	0.6093	1.3172
Mar 26-31	0.5845	2.2755
Mar 31-Apr 2	0.9464	0.3504
Apr 2- 7	1.1289	1.7674
Apr 7-16	2.1032	1.2308
Apr 16-19	0.1931	0.5651
Apr 19-23	1.3472	1.0488
Apr 23-26	1.563	1.336

Note: The critical value for F(3,20;0.05) = 3.0984

generally no significant differences between the snow courses. This is to be expected considering the relatively small geographic distances between the snow courses. Factors at the sampling sites such as vegetation density, aspect, elevation and accessibility would have greater relevance in explaining differences in the data.

5.1 SNOWPACK MODELLING

One important reason for conducting the snow survey was to provide a proper data base for calibrating snowpack accumulation and depletion models. These models are intended to interface with an overall hydrologic watershed model. Under this scheme the snowpack sub-model provides the means of deciding whether moisture inputs are snow, storing them as the snowpack and then releasing moisture at the appropriate time. The overall watershed model handles all other functions, that is surface and groundwater routing, interception and evapotranspiration, as well as data input and output.

Two snowpack models were investigated. One model was prepared as part of this project and is called the 'WINTER' subroutine. It operates also as a stand alone program and is based on simple temperature indices. The other snowpack model ('MOEHYDR') was developed by Logan (1977, 1976) and is based on a comprehensive understanding of the major physical processes involved. Because of the extensive input data structure of MOEHYDR interfacing with the watershed model was carried out by manual data transfer rather than installing the program as a subroutine.

5.2 'WINTER' SNOWMELT SUBROUTINE DESCRIPTION

Data required as input to the model consisted of average daily temperatures and daily precipitation. Since no observations were taken at Harp Lake, data was interpolated from Huntsville and Dwight meteorological stations.

The WINTER subroutine employs a threshold temperature below which all precipitation input is considered to be snow. This threshold was set at 1.5 degrees Celsius and is based on observed snowfall at and below this temperature. Provided the mean daily temperature remains below this value, all precipitation input is accumulated in the snowpack. The snowpack is otherwise reduced by the melting process which is modelled by two equations. These equations are based on degree-day indices, with one equation containing an additional factor for the occurrence of rainfall. Originally they were developed by the U.S. Corps of Engineers (1956), and are still in common use (Viessman et.al., 1972). With the availability of observed snowpack data it was possible to optimize the equations for local conditions.

$$MELT = 1.3 \times TEMP, \quad TEMP > 1.5 \tag{6}$$

$$MELT = (3.5 + 0.012 \times PREC) \times TEMP + 1.2 \tag{7}$$

where: MELT = daily amount of snowmelt (mm)
TEMP = mean daily temperature (degrees C)
PREC = total daily precipitation (mm)

The model also simulates the retention of a small percentage of liquid water (3%) as a means to account for the ripening of the snowpack towards the end of the winter season. The algorithm for the model is shown in Figure 13.

Although the model operates on a daily basis, fitting of the model was done by considering only the 24 mean

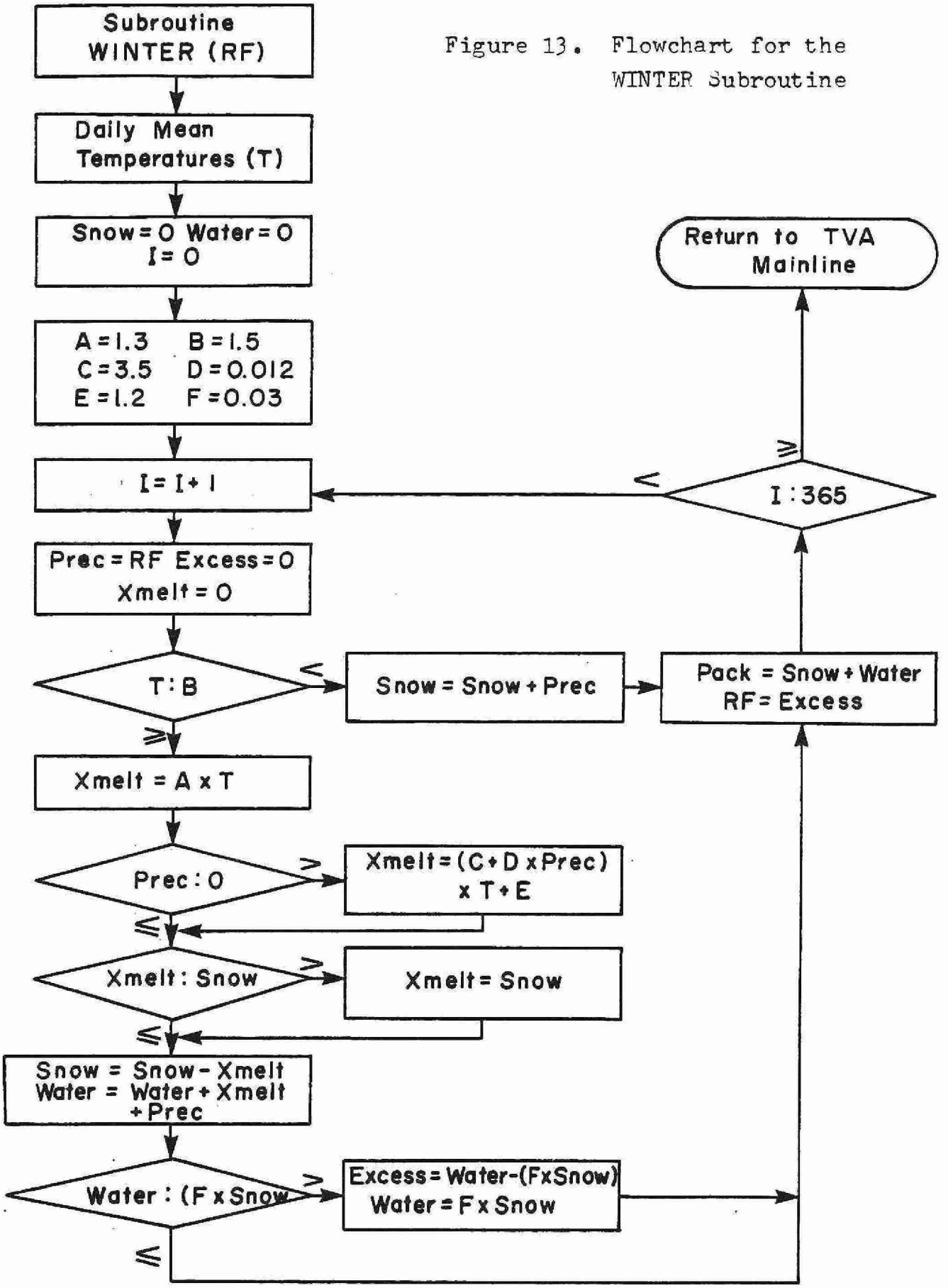


Figure 13. Flowchart for the WINTER Subroutine

observations available from the survey. The observed water equivalents are compared with the estimated results in Table 4. The response of the WINTER subroutine is further illustrated in Figure 14. It is to be noted that the initial under estimation of the snowpack as compared to the observed is caused mainly by the precipitation input which, as estimated, was insufficient to account for the actual amount of snow measured at Harp Lake. At the point where the maximum amount of snow had been reached the trend had reversed itself. It is only after this point that the model really begins to take effect by simulating snowmelt.

The model is capable of reproducing the snowpack water equivalent to within a mean error of 5.42 mm. The correlation coefficient obtained was 0.9884.

5.3 'MOEHYDR' SNOWMELT MODEL DESCRIPTION

Input data requirements for operation of MOEHDR are extensive. (See Table 5). Various options exist for allowing some flexibility in these requirements. The model has its own interpolation routine for cases where meteorological input data are to be used from two or more nearby meteorological stations. Units used within the model are imperial but conversions applied at input allow for the use of metric values. Corrections to wind speed are also made to compensate for differences in elevation. The model may be applied to any time period, which in this case was November 1, 1981 to April 30, 1982. Initial conditions were set consistent with the case of having no snow. The time increment was set at one day.

The first step taken in the model is to add any new snow to the old snowpack. If there was no previous snow then the new snowpack density is set at 0.1 and the initial snowpack temperature is set equal to the air temperature. The new

Table 4. WINTER SUBROUTINE ANALYSIS

An Analysis of Harp Lake Snow Survey Data for the Period November 1, 1981 - April 30, 1982.

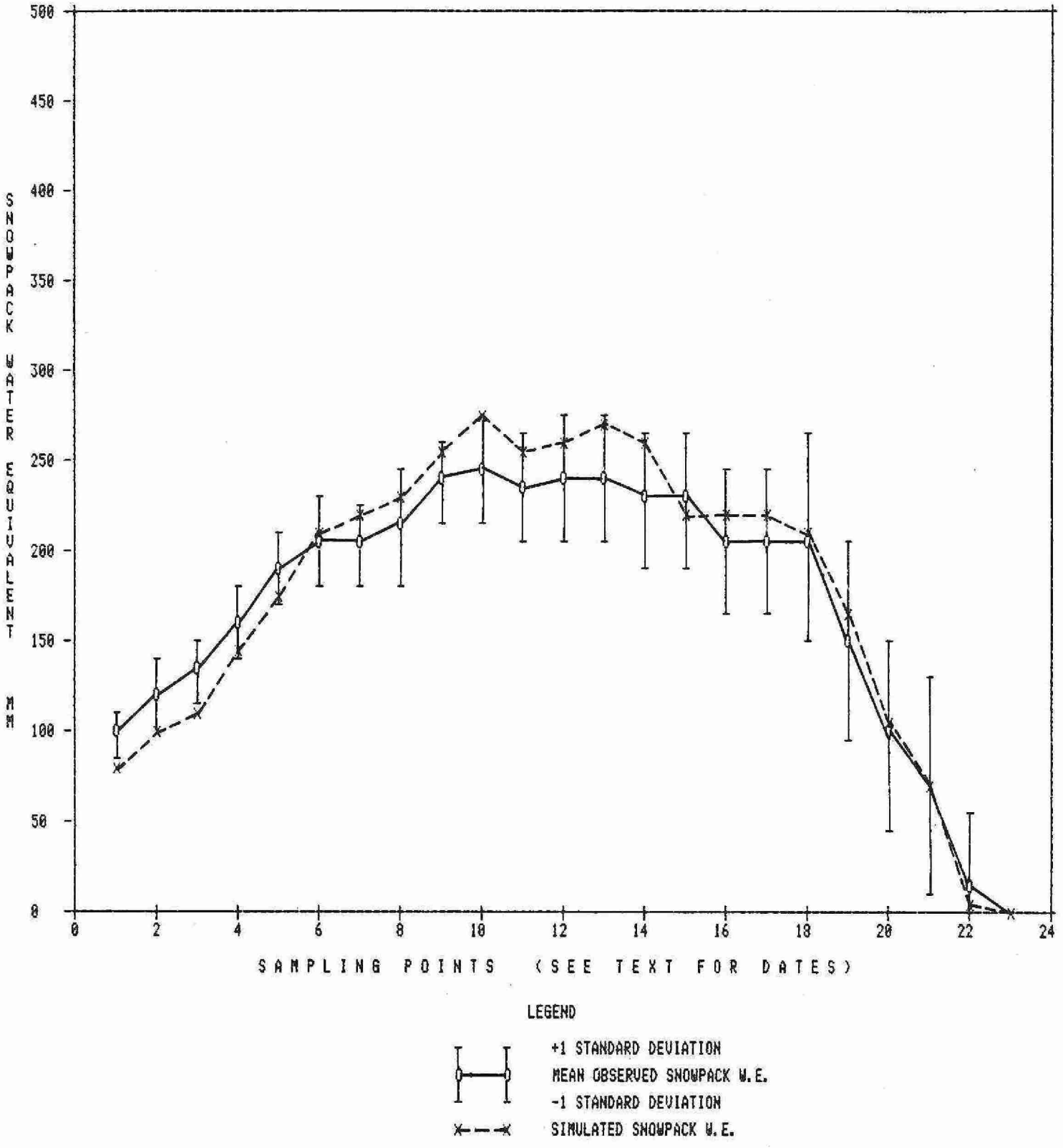
All units in millimeters of water.

EQUATIONS: 1.300 x TEMP, TEMP > 1.5
(3.500 + .0120xPREC)xTEMP + 1.200
3.0% WATER RETENTION IN SNOWPACK

Date YY/MM/DD	Observed Snowpack	Estimated Snowpack	Error Obs-Est	Excess Melt
81/11/01	0.00	0.00	0.00	0.00
82/01/07	97.90	78.23	19.67	21.85
82/01/15	118.20	98.51	19.69	0.00
82/01/22	133.60	112.39	21.21	0.00
82/01/29	158.50	143.16	15.34	0.00
82/02/05	190.30	173.89	16.41	0.00
82/02/11	205.00	210.87	-5.87	0.00
82/02/19	204.20	219.98	-15.78	0.00
82/02/26	212.70	230.61	-17.91	0.00
82/03/05	237.70	252.73	-15.03	0.00
82/03/11	245.00	272.88	-27.88	0.00
82/03/15	236.00	257.00	-21.00	33.04
82/03/19	239.60	261.40	-21.80	5.68
82/03/22	241.80	268.51	-26.71	0.00
82/03/26	229.30	259.89	-30.59	21.93
82/03/31	227.60	219.42	8.18	47.42
82/04/02	204.80	221.22	-16.42	0.00
82/04/07	202.80	218.49	-15.69	44.15
82/04/13	207.40	211.28	-3.88	14.24
82/04/16	150.10	163.80	-13.70	54.99
82/04/19	98.30	104.17	-5.87	70.10
82/04/23	69.70	72.38	-2.68	46.81
82/04/26	15.80	5.74	10.06	66.74
82/04/30	0.00	0.00	0.00	5.74

STATISTICAL SUMMARY

These statistics are based on 24 actual observations.
Observed : Total = 3926.30, SYY = 787569., Mean = 163.60
Estimated: Total = 4056.53, SXX = 869987., Mean = 169.02
Mean Error = 5.43, SSE = 6830.
Modified Standard Error of Estimate = 19.48
Standard Deviation of Y (Observed) = 79.47
Coefficient of Variation = .1191
Correlation Coefficient (r) = .9884



EVALUATION OF THE WINTER SUBROUTINE

Figure 14.

Table 5. Data Used in MOEHYDR Snowmelt Model

DATA	SOURCE	NOTES
Rainfall	Observation notes Dwight, Huntsville	Observed mm Converted to acre-inch Interpolation by model
Snowfall	Observation notes Dwight, Huntsville	Observed mm w.equiv Converted to acre-inch Interpolation by model
Mean Daily Air Temperature	Environment Canada Monthly Records Dwight, Huntsville	Observed degrees C Converted to deg. F Averaged by model
Wind Velocity	Station Records Dorset	Observed m/s Converted to mph
Dew Point Temperature	Derived from vapour pressure data.	degrees F
Vapour Pressure	Station Records Dorset	mb
Potential Evaporation	Morton's Evapotranspiration model using inputs from Dwight and Huntsville	Monthly estimates interpolated daily as a function of air temperature
Net Radiation (RF4)	Environment Canada Monthly Radiation Summary, Ottawa NRC	Observed Mj/sq.m Converted to langley

depth, density and water equivalent of the snowpack are calculated and the new potential water holding capacity is estimated based on an empirically derived function of the snowpack density. Allowance is also made for interception storage at this point. After verifying that there is still some snowpack by an amount reflecting the evaporation from the snow. An overview of the model is given in Figure 15.

The process of snowmelt modelling actually begins at this point in the model. The following sources of energy are considered:

Net radiation energy
Heat of condensation/sublimation
Heat of convection
Heat of conduction (ground melt)
Heat of advection in rainfall

Having estimated the net energy flux there are eight different possibilities for proceeding further. There can be either a positive or a negative heat flux, rain or no rain, and the antecedent snowpack condition (thermal quality) may be less than or greater than one. For each case the physical situation calls for a different treatment of the snowpack.

With a negative energy flux if any liquid water is present in the snowpack, some or all can be frozen. This process reduces the heat deficit by releasing a proportional amount of latent heat of fusion. With no liquid water present the negative flux causes a reduction in the snowpack temperature. If there is also rain then the above applies with the added possibility of some or all of the rain freezing. Any unfrozen liquid is added to the liquid water present and any excess may be drained.

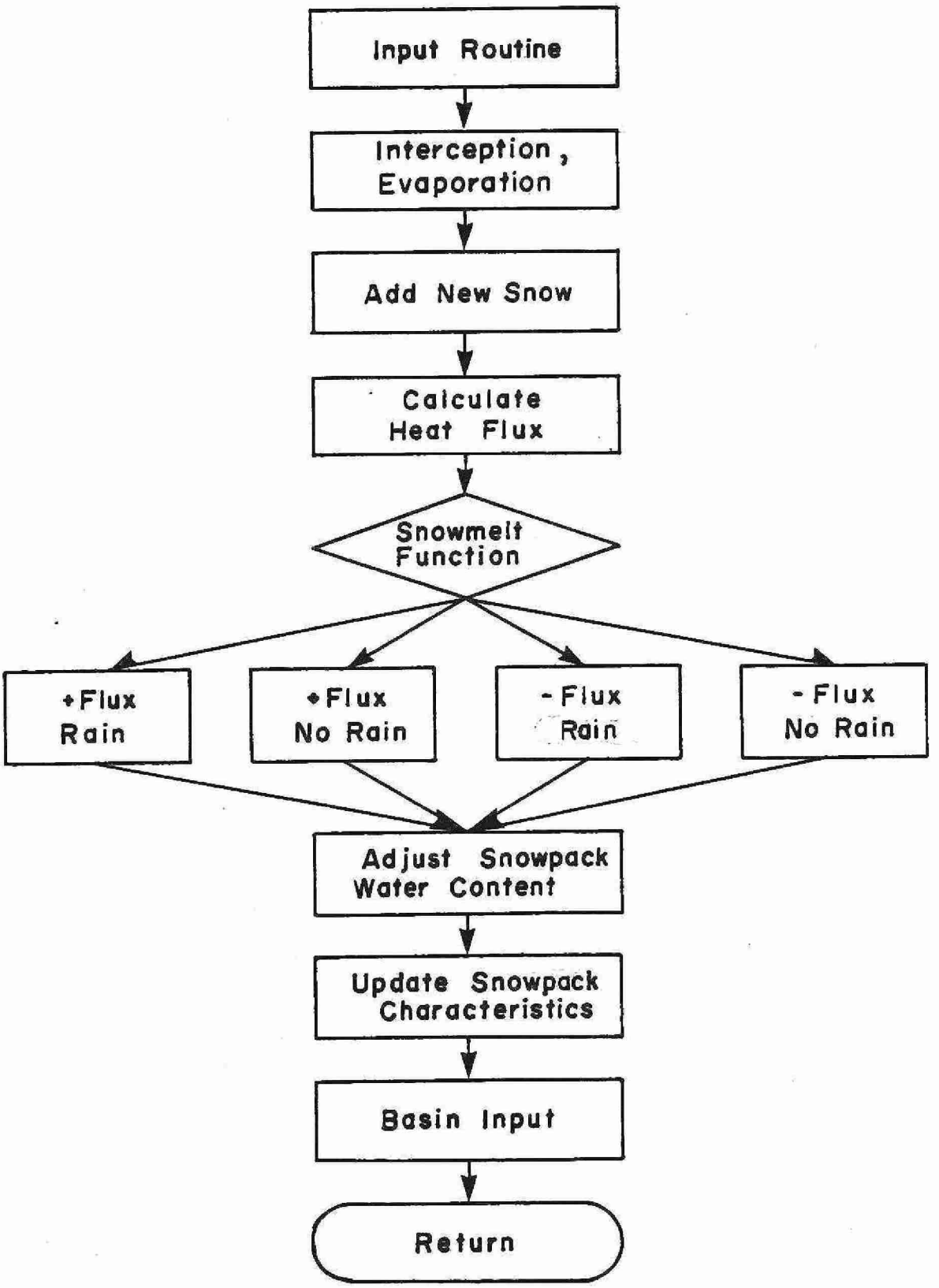


Figure 15. Flowchart for the MOEHYDP Snowmelt Model

With a positive energy flux the simplest case is that the snowpack heat deficit is increased. Only when the snowpack temperature reaches the melting point and the heat deficit is satisfied, can liquid water exist in the snowpack. Any meltwater that is produced from here on must first fill the water holding capacity of the snowpack but then it becomes excess water. In the presence of rain any heat deficit may cause freezing of some of the precipitation, in the process releasing latent heat of fusion and thereby increasing the snowpack temperature. Once the heat deficit is satisfied, any further liquid precipitation is added to any liquid water present in the snowpack and excess water can be released.

The final stage in MOEHYDR is to adjust the snowpack density and thereby decrease the depth of the snowpack if warranted. This part of the model is based on regression equations obtained using the observations from the snow survey for Harp Lake (Table 6). The regressions were simply the density as a function of the snow depth calculated separately for accumulation and melt periods. In addition the regressions included a parameter for rain if this was the case.

Water equivalent output derived from the MOEHYDR snowmelt model is shown in Figure 16 in comparison with observations for Harp Lake. The model also gives snowpack depth, density, temperature, thermal quality and excess melt.

5.4 SNOWPACK MODEL COMPARISON

Since there are two snowmelt models comparisons may be made between them. One basis for doing so is by comparing the ability to reproduce the water equivalent curve. Such a comparison favors the WINTER subroutine. All other information produced by MOEHYDR is ignored because the WINTER program simply does not have the capability. For this reason

Table 6. Regression Equations For Estimating Snowpack Density

Accumulation Period and no Rain -

$$DENS' = 0.0998 + 0.0341(\ln DEPTH) \quad (6.1)$$

Accumulation Period with Rain -

$$DENS' = 0.0248 + 0.0512(\ln DEPTH) + 0.0095(RAIN) \quad (6.2)$$

Melt Period and no Rain -

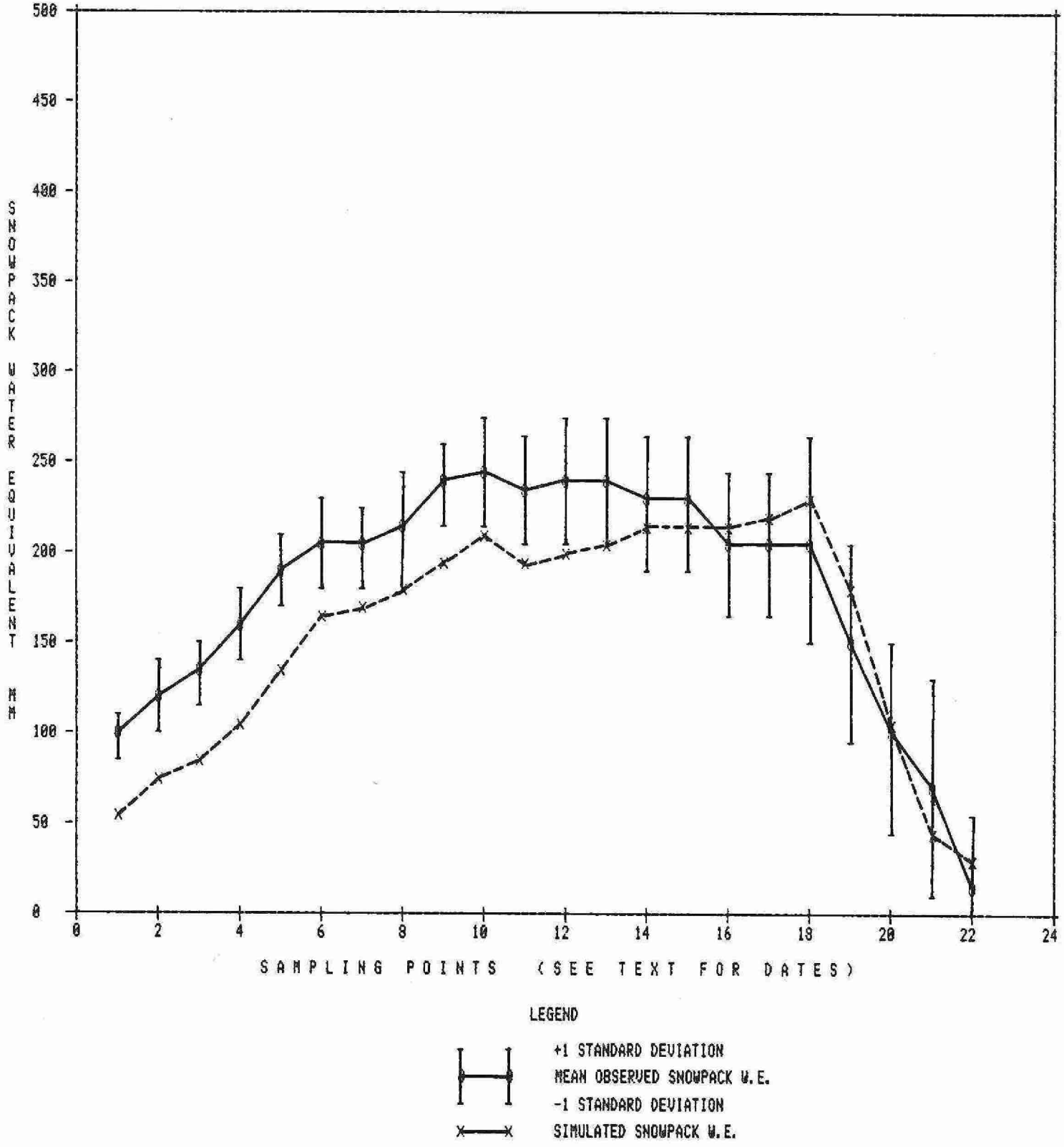
$$DENS' = 0.5324 - 0.0397(\ln DEPTH) \quad (6.3)$$

Melt Period with Rain -

$$DENS' = 0.5338 - 0.0390(\ln DEPTH) - 0.0047(RAIN) \quad (6.4)$$

where:

DENS'	= Estimated snowpack density	g/cc
DEPTH	= Observed depth of snow	centimetres
RAIN	= Total daily rainfall	centimetres



EVALUATION OF THE MOEHYDR SNOWMELT MODEL

Figure 16.

subjective comparison should also be made. Criteria to be taken into account include the intended use of the model and the ease of operation in terms of data acquisition and interpretation of results.

Intended Use - While the bulk of the information provided by MOEHYDR has potential use in the future, only the water equivalent output as estimated by both models is needed in further hydrologic modelling for this portion of the project.

Data Acquisition - The data requirements for the WINTER snowmelt model can easily be met. To meet the data requirements of the MOEHYDR model other models and various extrapolations schemes had to be employed. This estimation of input data if eliminated and if instead locally observed data were substituted, would likely result in superior performance of the model.

Interpretation - The MOEHYDR model addresses most of the important physical processes involved in snowmelt. While it does not by any means contain all processes it does provide a more substantial basis than the regression based WINTER model. Therefore MOEHYDR may be more widely applicable than the WINTER model.

5.5 USE OF THE WINTER SUBROUTINE IN THE TVA MODEL

The Tennessee Valley Authority Daily Watershed Model will be described more fully in the next chapter. This section is intended to present results of the application of the model for the 1982 Winter period. In the previous interim report

(Goebel, 1983), the WINTER subroutine was used in conjuction with the TVA model to calibrate Harp Lake watershed discharges (Figure 17) for the period October 1, 1981 to April 30, 1982. This work was repeated except that the calibration period was reduced to the melt season only, that is for the months of March and April. This resulted in a significant improvement in performance.

The observed and predicted streamflows may be compared in Figures 18 to 23. There is some concern that the main runoff peak was under estimated. The amount of water involved is however, made up over the calibration period because continuity is forced. The response of the model is good, since distinct melt events, as evidenced by the streamflows, have been simulated.

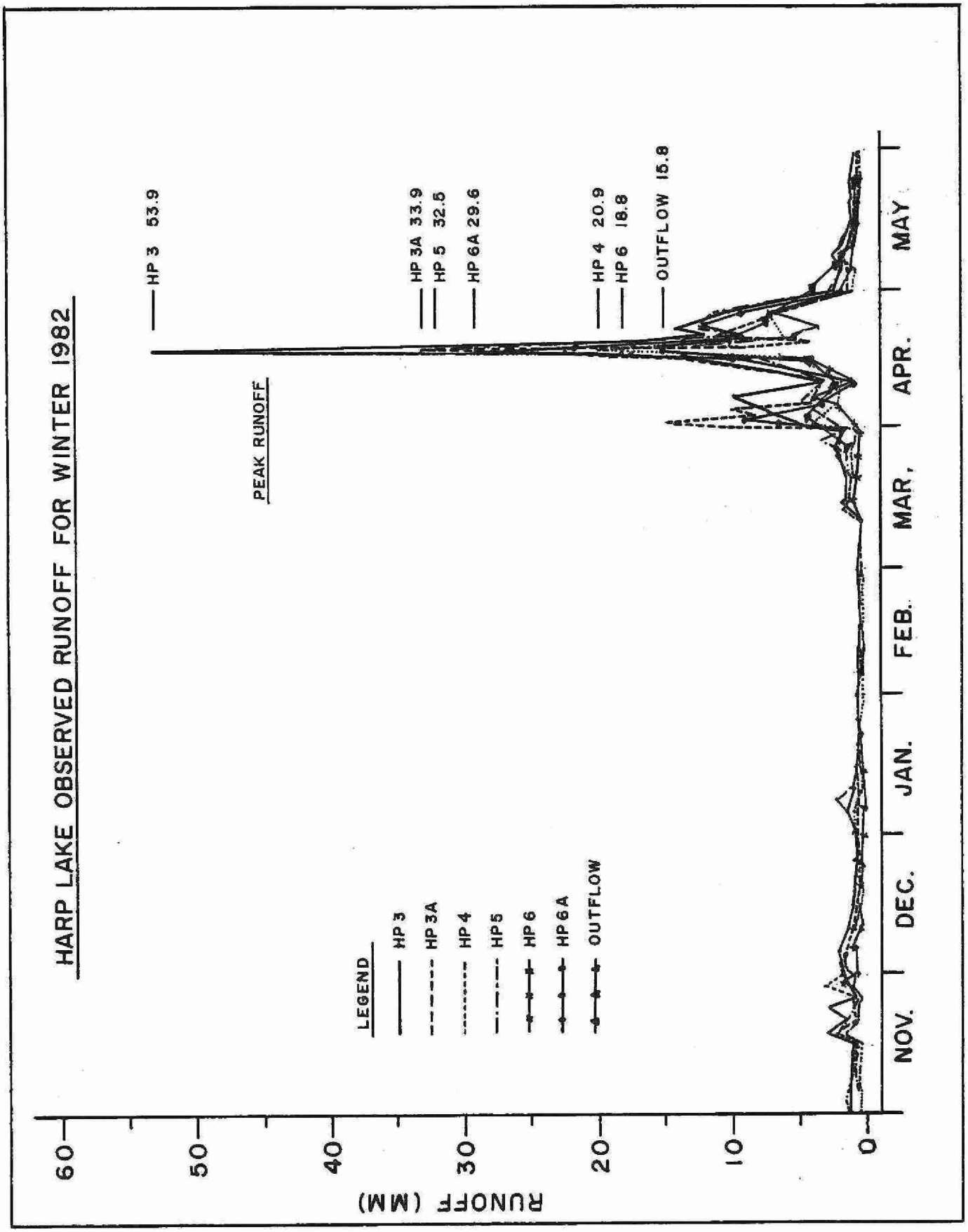


Figure 17. Harp Lake Observed Runoff for Winter 1982

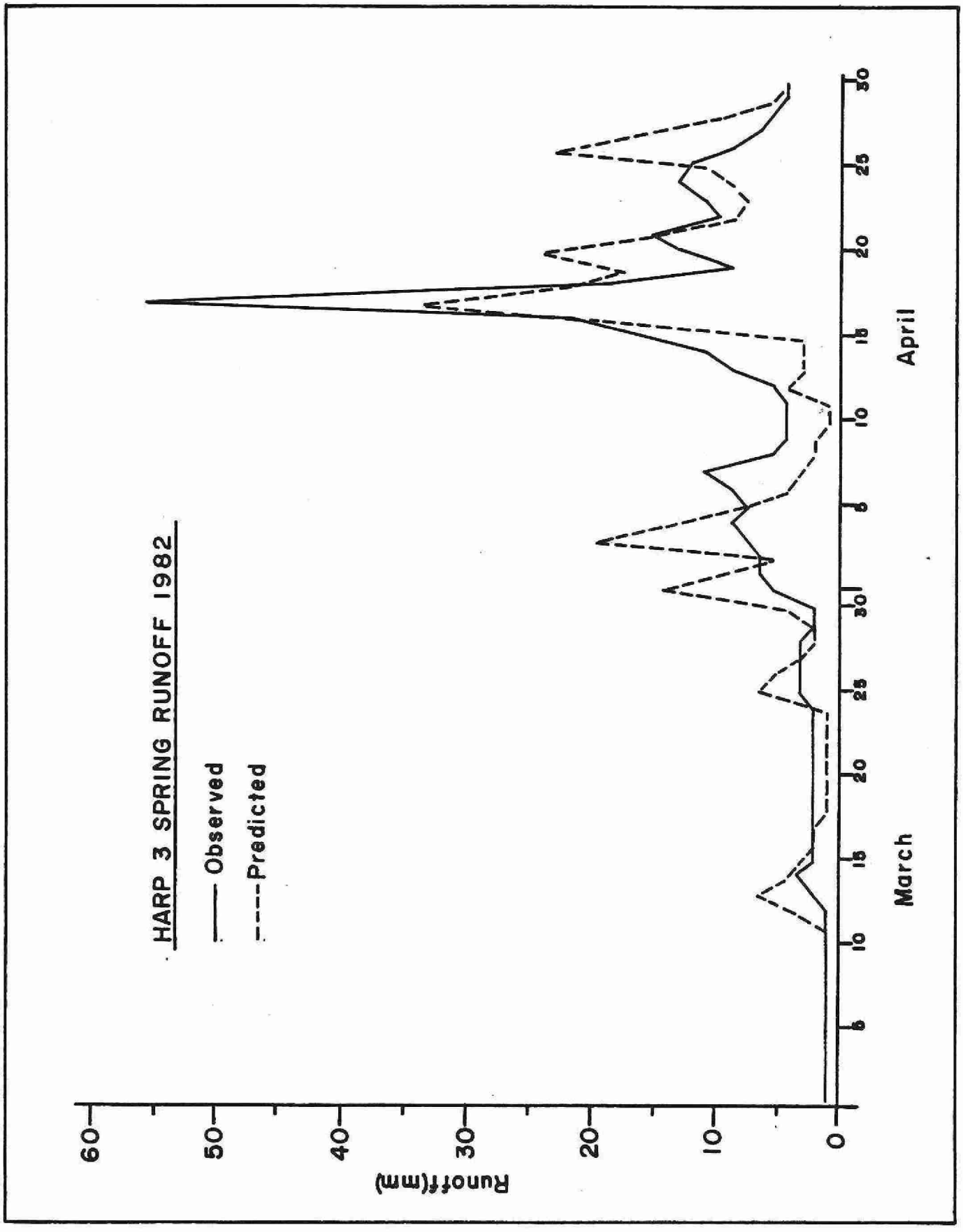


Figure 18. Observed and Predicted Spring Runoff, Harp 3

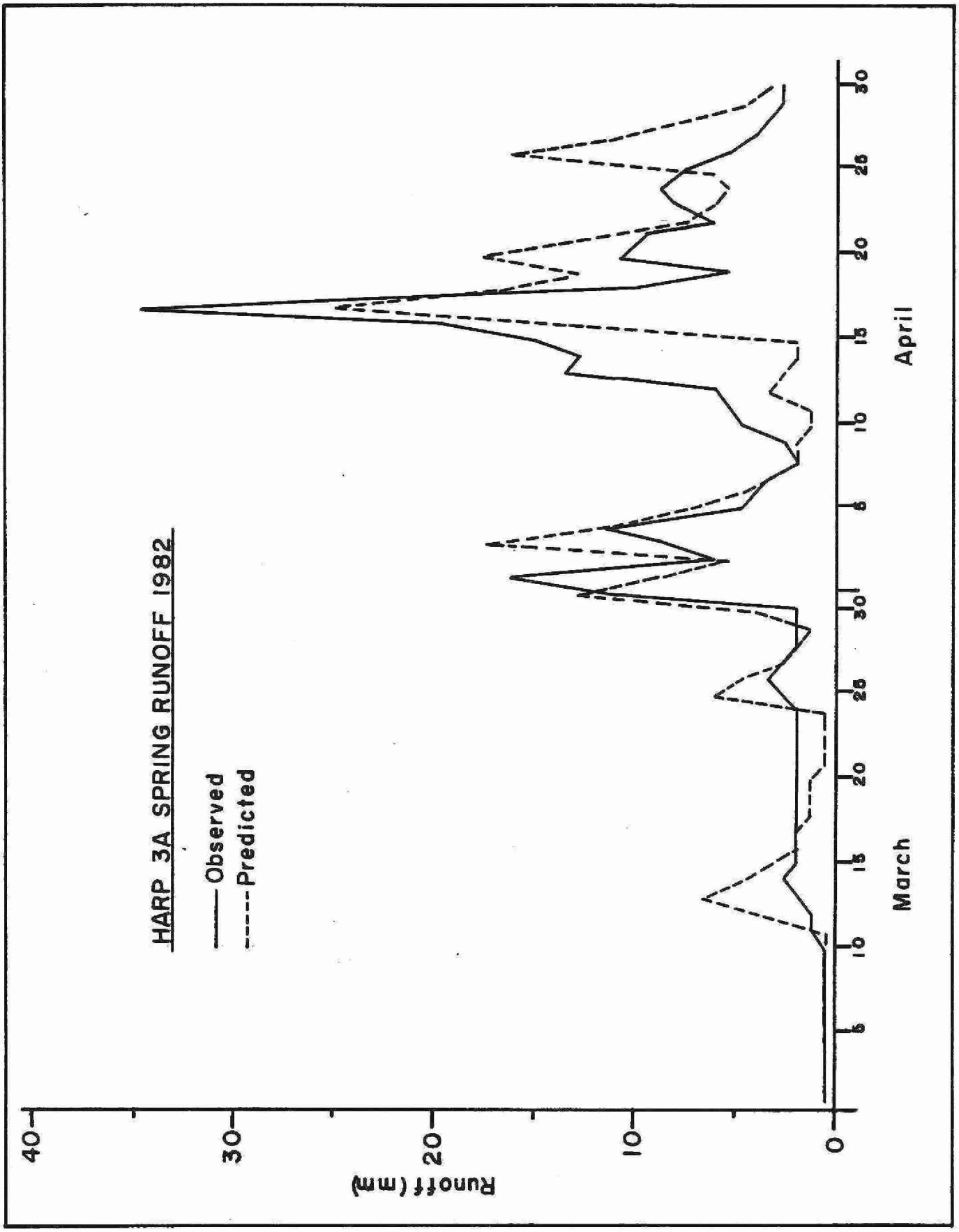


Figure 19. Observed and Predicted Spring Runoff, Harp 3a

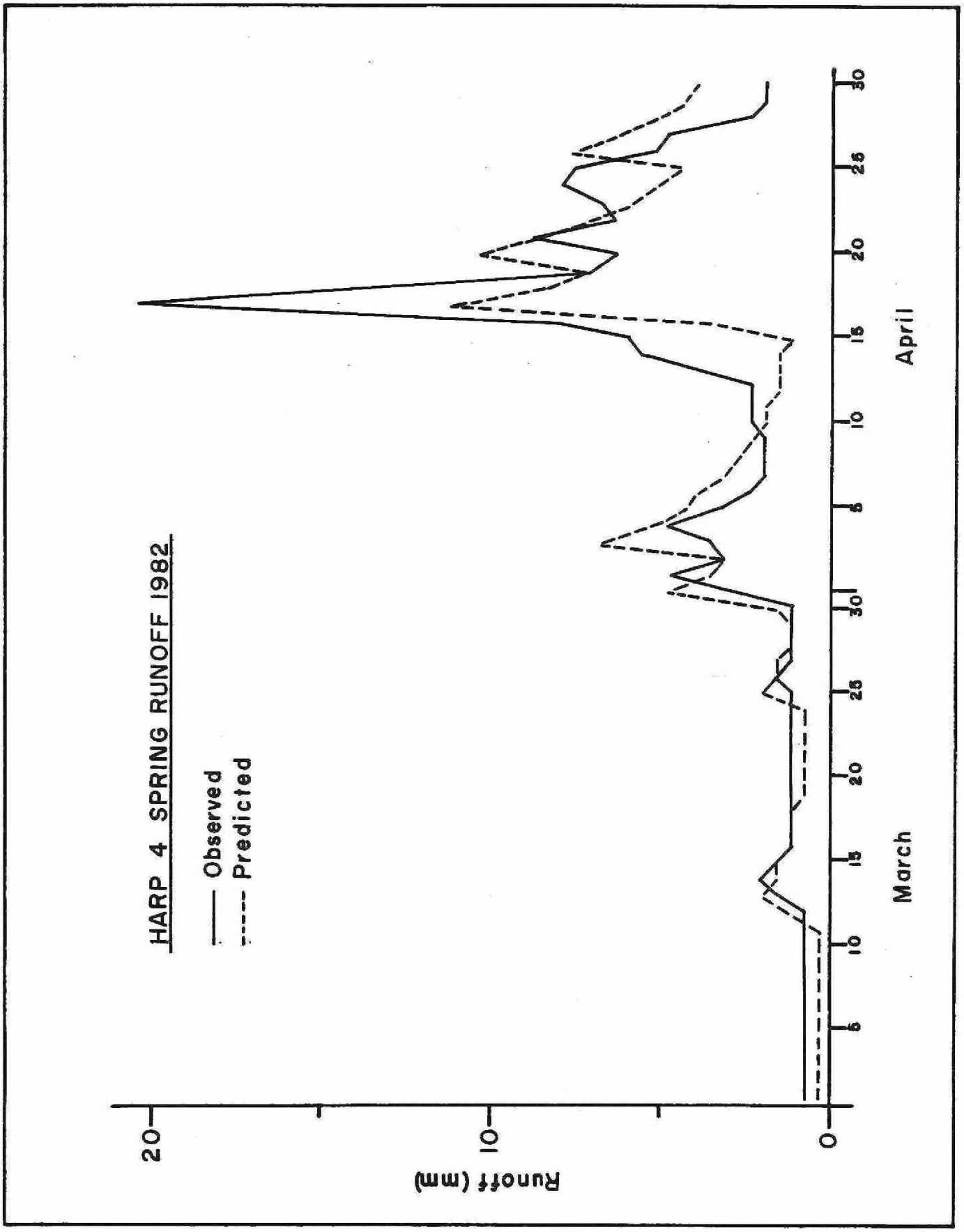


Figure 20. Observed and Predicted Spring Runoff, Harp 4

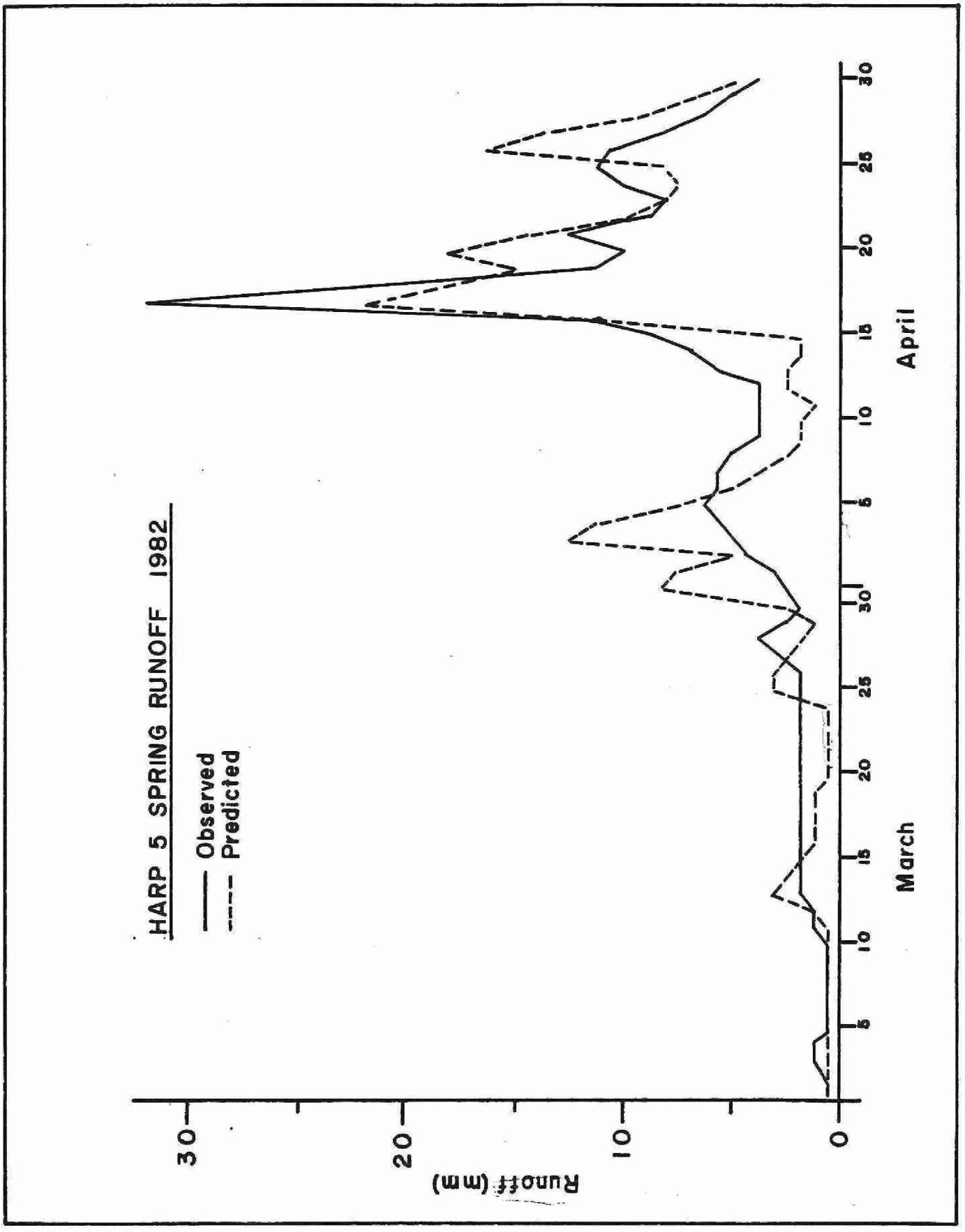


Figure 21. Observed and Predicted Spring Runoff, Harp 5

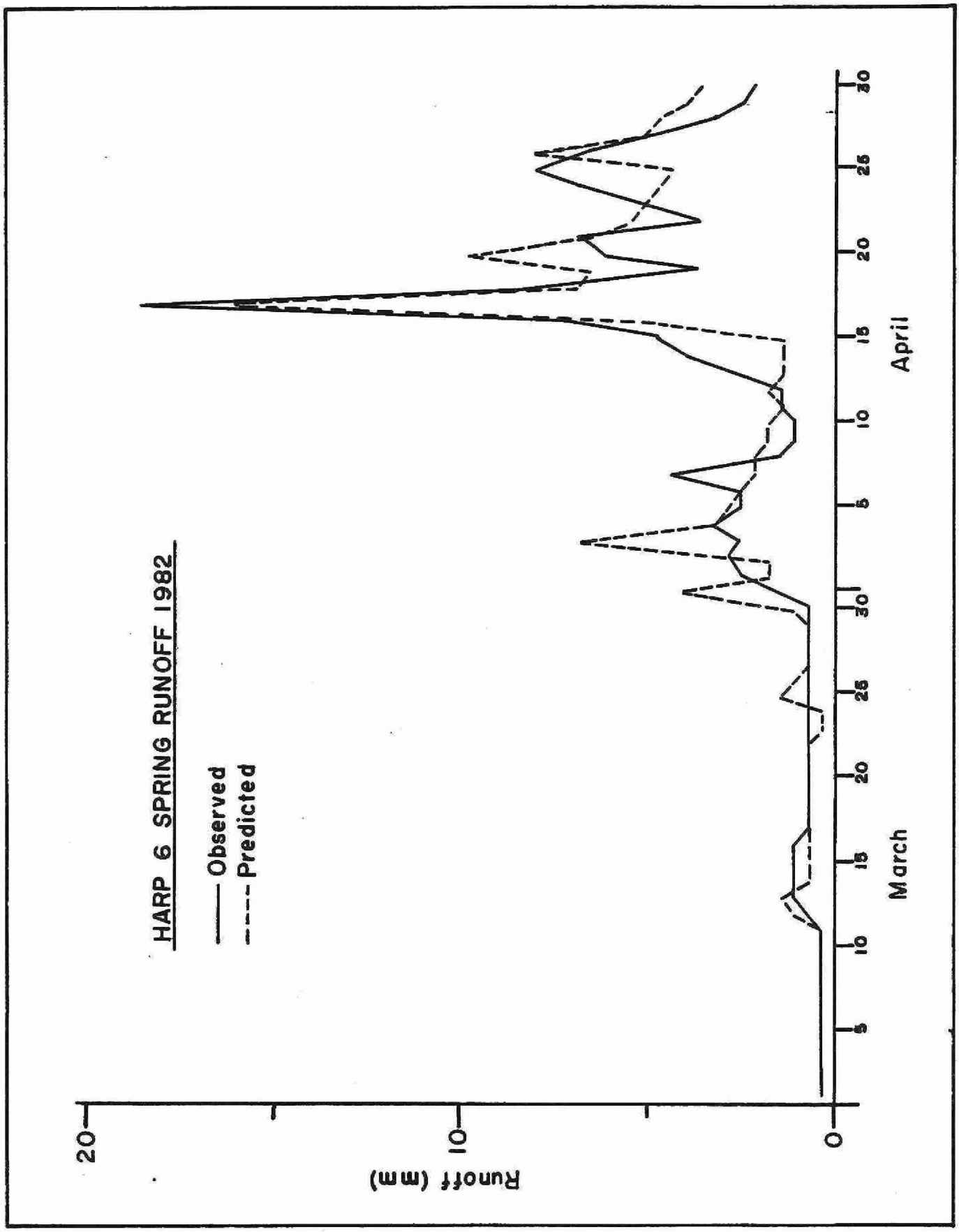


Figure 22. Observed and Predicted Spring Runoff, Harp 6

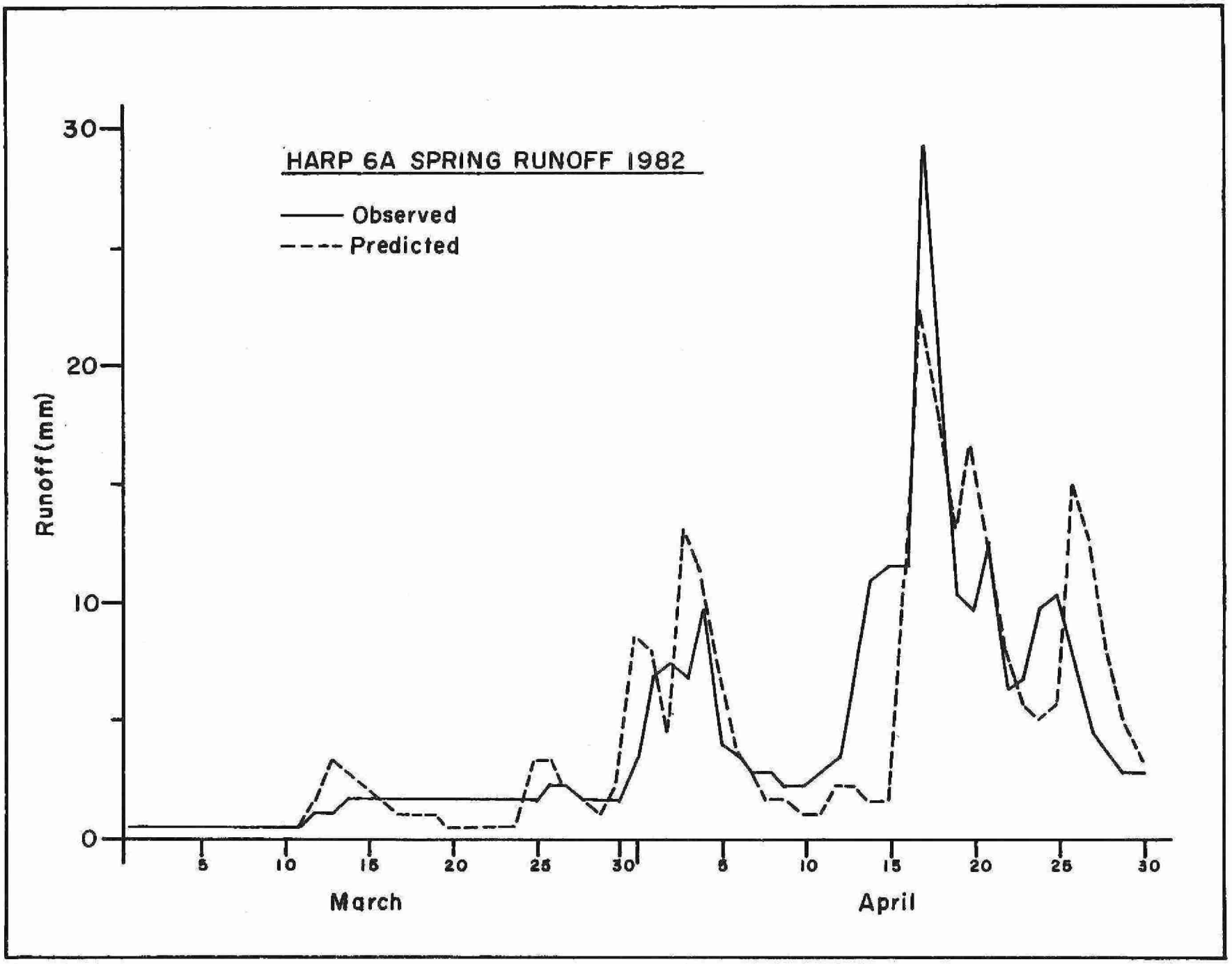


Figure 23. Observed and Predicted Spring Runoff, Harp 6a

6.0 TENNESSEE VALLEY AUTHORITY DAILY STREAMFLOW MODEL DESCRIPTION

The Tennessee Valley Authority, (1972), developed a budget-type watershed model for use in predicting flow for water resources development, planning and forecast investigations. Use of the TVA model was recommended by Logan (1980), and Goebel (1982), because of the model's ability to meet basic requirements of the APIOS project. The model as such did not have any provision for dealing properly with winter conditions, that is, the storage of precipitation input in the form of snow. Hence the previous chapter's emphasis on providing a snowmelt subroutine.

It is not necessary to have a complete understanding of the TVA model for this discussion. Suffice to say that the TVA model operates on the precipitation input using properly calibrated model parameters to produce a daily flow simulation. In calibrating the model one uses observed flow data to automatically upgrade initial parameter estimates until a minimum squared prediction error is achieved. It is important to point out, since this is a budget type model, that over the long term inputs must be balanced. This feature is enforced under the valid assumption that long term losses, that is, precipitation minus outflows plus any changes in storages, are attributable to evapotranspiration. In fact, the changes in watershed storage may often be disregarded because the amount of moisture involved is small relative to the other hydrologic components.

The TVA model is a simple mathematical represention of the major hydrologic processes. Rainfall input is intercepted by the vegetation. The actual amount of interception is related to the season. Throughfall and excess snowmelt provide moisture input to the basin. The soil profiles are the media which provide for infiltration and soil moisture

storage. The quantity of moisture absorbed at a given time is directed by the retention index. The retention index relates to the volume of soil moisture, the groundwater volume and the amount of water available on the surface. The surface water remaining is routed as runoff to the streamflow. The volume of water absorbed by the soil profile satisfies the soil moisture requirement up to the total storage capacity. A quantity of this stored water is permeated to groundwater storage. Output from this reservoir is routed to contribute to the total streamflow. Actual evapotranspiration is satisfied by first depleting the interception storage and then the soil moisture storages. The model operates on a continuous discrete daily basis. A schematic overview of the TVA model is given in Figure 24.

6.1 MODEL CALIBRATION PROCEDURE

Calibration of the TVA model was carried out using the daily streamflow data from the 21 watersheds for the 6 A-Lakes. Daily precipitation and temperature data was obtained from nearby meteorological stations as described previously. Morton's evapotranspiration model provided the necessary monthly evapotranspiration estimates. These estimates were adjusted to exactly equal the annual observed losses. Model constants and initial storage values were selected according to experience with previous calibration efforts (Goebel, Thaysen, 1982). These values are:

Summer interception -	3.81 mm
Winter interception -	0.25 mm
Initial soil moisture -	177.8 mm
Initial groundwater storage -	7.6 mm
Initial A-horizon soil moisture -	12.7 mm
A - horizon moisture capacity -	25.4 mm

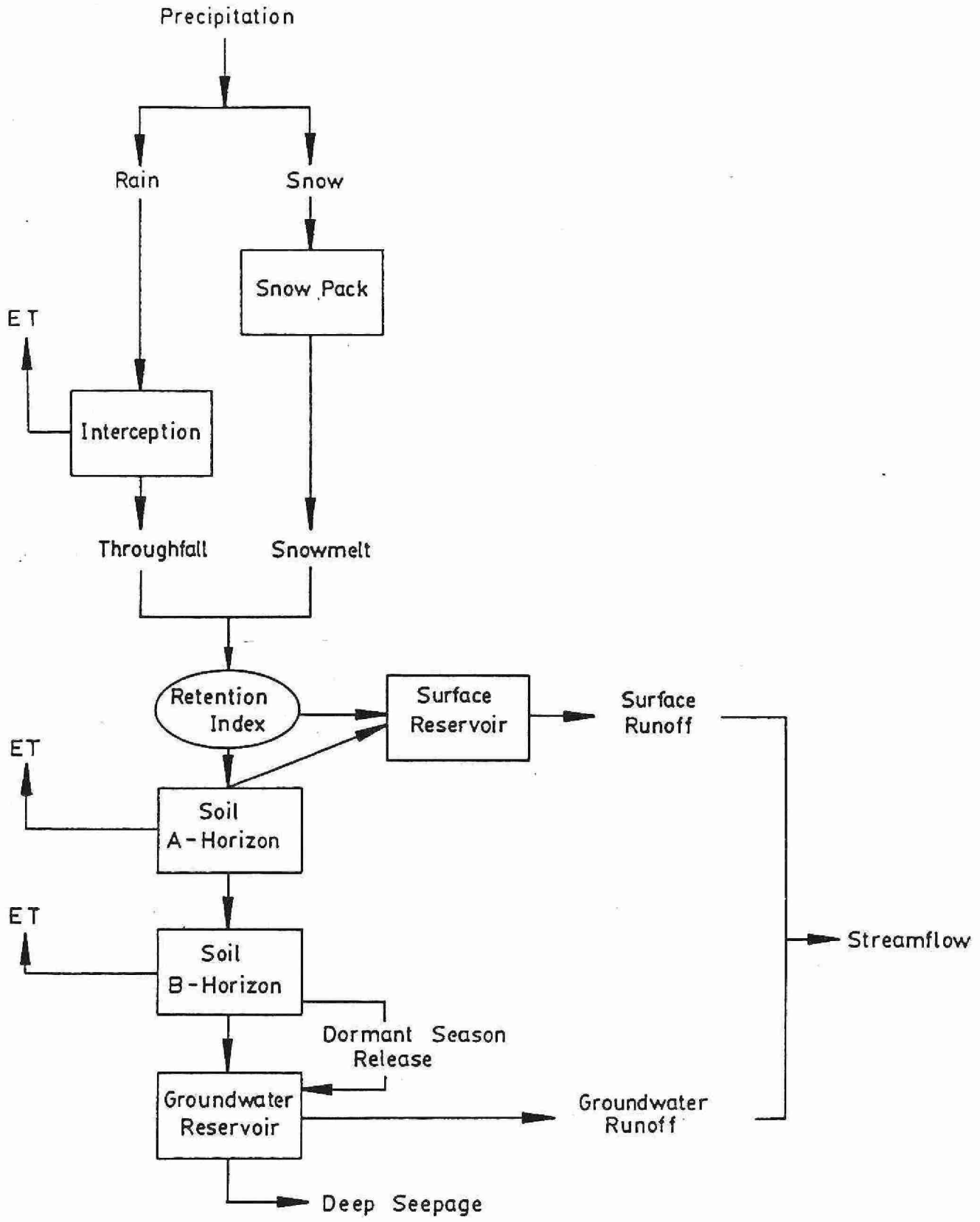


Figure 24. Schematic Diagram of TVA Continuous Daily Streamflow Model

A three month calibration initialization period is used by the model to stabilize various storages. The actual calibration period used begins October 1, 1976 and continues for three consecutive years. The calibration proceeds to find the value of the nine model parameters such that the squared prediction error is minimized. These model parameters are:

Winter storm parameter (in) -	A
Summer storm parameter (in) -	D
Groundwater volumetric parameter -	GWK
Routing parameter -	TDSRO
Surface runoff recession parameter -	SROK
Soil B-horizon permeability (in) -	BHORP
Summer groundwater recession -	GROKS
Winter groundwater recession -	GROKW
Continuity parameter (1/in) -	B

6.2 CALIBRATION RESULTS

In addition to finding the value of the calibration parameters, the TVA model produces copious computer output. Each run echos all the meteorological input data, the observed streamflows and all other input parameters. A summary of the pattern search is printed. Once the calibration is completed the program prints all daily storages and moisture transfer values. These are also summarized on a monthly and annual basis. Plots comparing the daily observed and predicted flows are generated. Further summaries give various statistics. In this report only the daily predicted streamflows are reproduced (see Appendix B). Comparison plots are also given for each year. The remaining information is available from the Ministry of the Environment.

Table 7 lists the TVA model parameters obtained from calibration of each watershed. There are a few important

Table 7. Optimum TVA Model Parameters

Basin	A	D	GWK	TDSRO	SROK	BHORP	GROKS	GROKW	B
HP3	17.656	130.625	1.956	.117	.919	.531	.991	.624	.563
HP3a	.016	2.031	2.	.206	.773	.75	.997	.987	.011
HP4	.02	16.375	1.97	.108	.855	.319	.999	.994	.262
HP5	.972	198.75	2.	.141	.821	.648	.996	.984	.485
HP6	.707	4.375	1.925	.156	.756	.875	.998	.995	.01
HP6a	.004	4.043	2.	.176	.733	.782	.997	.994	.01
JY1	.074	2.5	1.944	.078	.907	.775	.999	.994	.01
JY3	.008	2.266	2.	.074	.9	.787	.977	.922	.01
JY4	.008	3.75	1.978	.105	.689	.9	.997	.995	.022
DE5	.002	1.563	1.937	.032	.905	.942	.999	.991	.01
DE6	.003	1.781	2.	.078	.893	.525	.999	.993	.01
DE8	.336	3.754	1.2	.056	.945	.835	.999	.959	.01
DE10	.008	1.25	1.825	.099	.871	.7	.998	.99	.012
DE11	.016	3.25	.997	.073	.919	.75	.999	.979	.025
CB1	.002	6.875	1.863	.121	.92	.905	.999	.997	.01
CB2	.002	2.234	1.909	.098	.898	.609	.998	.994	.011
RC1	.004	2.453	1.971	.071	.905	.738	.998	.994	.011
RC2	.006	3.5	1.5	.1	.919	.675	.999	.995	.02
RC3	.891	9.891	1.609	.098	.939	.731	.999	.992	.139
RC4	.244	3.781	2.	.095	.919	.753	.999	.993	.01
BC1	.002	21.	2.	.098	.932	.999	.998	.995	.024
MEAN	.999	20.288	1.837	.104	.872	.739	.997	.97	.08
STD	3.829	49.452	.28	.04	.074	.157	.005	.081	.16

Table 8. Correlation Matrix for TVA Model Parameters

	A	D	GWK	TDSRO	SROK	BHORP	GROKS	GROKW
D	0.552							
GWK	0.09	0.177						
TDSRO	0.092	0.23	0.332					
SROK	0.14	-0.04	-0.38	-0.661				
BHORP	-0.304	-0.286	-0.071	-0.081	-0.089			
GROKS	-0.269	-0.175	-0.233	0.021	0.002	0.016		
GROKW	-0.975	-0.502	-0.052	-0.02	-0.181	0.283	0.442	
B	0.726	0.904	0.151	0.193	0.023	-0.521	-0.18	-0.673

observations concerning these values. The first is that the parameters are quite similar from one watershed to the next. This is somewhat remarkable considering the range of streamflows observed. Harp Lake Watershed 3 is a strong exception to this general rule. Table 8 gives the correlation coefficients between the TVA model parameters.

The A parameter is generally a low value. This indicates a tendency of the model to produce fast winter runoff, that is there is little moisture retention associated with the winter and spring snowmelt. The summer storm parameter D is always greater than A and hence produces more retention for a given storm. The retained water ends up being allocated to infiltration. Parameters A and D are weakly correlated.

The groundwater volumetric parameter GWK tends to or equals a value of 2 with only 6 exceptions. This parameter was constrained and not allowed to exceed that value. The reason was to prevent unreasonable fluctuation in the groundwater reservoir and hence a dominance of groundwater flow.

The routing parameter TDSRO is relatively constant for all watersheds. It ranges from 0.071 to 0.206. These values are however considered to be low from a physical point of view since TDSRO represents the fraction of water given to runoff on the day of a storm. The likely explanation is that the 8 hour shift in observing streamflow as opposed to observing precipitation is the cause. The surface runoff recession constant SROK is correspondingly high but consistent for all watersheds. These two parameters are inversely correlated.

Values for the B-horizon permeability rate are somewhat more variable. The option of taking direct measurements of soil permeability sould be considered.

The two groundwater recession parameters are also quite constant for all watersheds. The winter recession is lower than the summer recession parameter largely because there is little or no groundwater recharge in the winter months. Thus the winter recession parameter tends to control the winter streamflow.

The continuity parameter B actually takes its value after the final optimization. The value of B is such that the flow predictions are forced to equal the observed streamflows over the entire calibration period. B is therefore strongly related to the A and D model parameters.

Overall correlation coefficients for the entire 3 year calibration period ranged from 0.569 at Harp Lake 3a to 0.755 at Chub Lake 1. Most storm events are correctly modelled by simulated flows. There are instances however, where the observed flows have not responded to certain storm events. On the other hand there are a few examples where an observed flow increase does not correspond to any particular rainstorm. Such behavior is to be expected when precipitation is highly localized keeping in mind that precipitation is measured at stations some distance away from the watersheds. In the TVA model, streamflow is always produced when there is moisture input in excess of the interception. Thus this produces some calibration error.

The critical spring runoff period was modelled satisfactorily for the 1977 and 1979 water years. 1978 was not satisfactory. The reason seems to be that in 1978 the spring runoff occurred late in the season. In terms of the TVA model this means that the latter part of the snowmelt period was occurring when the summer storm parameter begins to take effect. While it is possible to change the season parameters in the model, the same season periods apply to all years. Thus the situation for 1978 can be improved but only

at the expense of the other two years. A varying season parameter would probably contribute to an improvement in this area.

7.0 TVA MODEL APPLICATIONS

The TVA streamflow model is intended to be a tool for use in predicting or simulating streamflows where observed streamflow data is unavailable. Of course there must be adequate meteorological data to operate the TVA model and to ensure a satisfactory response. There are two specific applications of the model.

1 - Extending streamflow records in time. This application involves predicting streamflows past the date of the last actual streamflow observation for a particular watershed. Presumably sufficient historic data is available to calibrate the TVA model for the particular drainage basin. The model parameters are then simply applied to the future or to any missing data sequences.

2 - Estimating flows at ungauged watersheds. With no historic streamflow data available to properly calibrate the TVA model, it becomes necessary to estimate model parameters by some other means. The estimated parameters are then applied in the streamflow model.

7.1 STREAMFLOW PREDICTIONS FOR GAUGED STREAMS

The TVA model calibration described in the previous chapter made use of three years (Oct. 1, 1976 to Sept. 30, 1979) of historic streamflow data. This left an additional 8 month period of observed data beginning Oct. 1, 1979 to May 31, 1980 unused. Flow predictions where made for this period using the model and then compared with the existing observations for all 21 watersheds.

To carry out streamflow predictions in this manner, initial estimates of soil moistures, groundwater volume,

interception volumes and flows are required for the day previous to the first day predicted. These values were simply obtained by noting the values on the last day of the corresponding calibration. The model parameters used were also those obtained in the calibration (see Table 7). Meteorological input data was an extention of the same data base. Appropriate evapotranspiration correction factors were applied.

The daily streamflow predictions are given in Appendix C. These data are plotted against the observed flows to provide a means of comparison. The principal statistics regarding the mean and standard deviation of flow are given in Table 9. Table 10 gives further comparative statistics including the sum of squared errors (SSE), the correlation coefficient (R), the standard error of estimate (SEREST), and the coefficient of variation (COEVAR).

$$SSE = \sum_{i=1}^{n} (OBS_i - PRED_i)^2 \qquad (8)$$

R = Pearson Product Moment Coefficient of Correlation

$$SEREST = \sqrt{SSE / (n-np)} \qquad (9)$$

$$COEVAR = SEREST / \overline{OBS} \qquad (10)$$

where: n = the number of observations
OBS_i = the observed streamflow for day i
$PRED_i$ = the predicted streamflow for day i
np = the number of estimated parameters (9)

While these statistics are useful for summarizing the relative behavior of the streamflow model they have one drawback. That is they are scanned statistics, meaning that

Table 9. TVA Model Simulation Results
(Mean, Standard Deviation and Coefficient of Variation)

BASIN	OBSERVED FLOWS Mean	Std	Cv	PREDICTED FLOWS Mean	Std	Cv
HP3	2.436	3.354	1.377	2.172	2.848	1.311
HP3a	2.113	3.127	1.48	2.147	2.8	1.304
HP4	2.139	3.459	1.617	2.296	2.232	0.972
HP5	2.735	4.474	1.636	2.146	2.447	1.14
HP6	1.27	1.763	1.388	1.325	1.679	1.267
HP6a	1.828	2.372	1.297	1.589	2.458	1.547
JV1	1.981	2.627	1.326	1.915	1.879	0.981
JV3	2.117	2.492	1.177	2.074	1.982	0.956
JV4	1.973	3.032	1.536	1.749	2.012	1.15
DE5	2.556	3.766	1.474	2.785	2.656	0.954
DE6	2.182	3.434	1.574	2.661	2.706	1.017
DE8	2.16	2.916	1.35	1.78	1.73	0.972
DE10	2.653	4.019	1.515	2.851	3.1	1.087
DE11	1.626	2.543	1.564	2.066	2.284	1.105
CB1	1.277	1.48	1.159	1.836	2.299	1.252
CB2	2.394	3.133	1.309	2.797	2.935	1.049
RC1	2.232	3.135	1.405	2.717	2.786	1.026
RC2	1.796	2.442	1.36	2.375	2.575	1.084
RC3	1.974	2.199	1.114	2.798	2.138	0.764
RC4	1.699	1.919	1.129	2.374	2.231	0.94
BC1	1.57	2.295	1.462	1.535	1.971	1.284

note: The above are calculated for daily flows from October 1, 1979 to May 31, 1980.

Table 10. TVA Model Simulation Results and Statistics

Basin	SSE	R	COEVAR	SEREST	S-U1	R-U1
HP3	1331	.730	.977	2.38	.135	.191
HP3a	1047	.760	.999	2.11	.147	.189
HP4	885	.863	.907	1.94	.161	.238
HP5	1672	.890	.975	2.67	.241	.303
HP6	282	.806	.863	1.10	.158	.183
HP6a	826	.714	1.026	1.88	.193	.200
JV1	673	.792	.883	1.69	.129	.216
JV3	539	.802	.716	1.52	.123	.226
JV4	1184	.690	1.137	2.24	.168	.238
DE5	1542	.747	1.003	2.56	.151	.162
DE6	1537	.701	1.172	2.56	.156	.168
DE8	1267	.637	1.075	2.32	.187	.318
DE10	1819	.735	1.049	2.78	.142	.159
DE11	942	.689	1.232	2.00	.177	.188
CB1	862	.623	1.501	1.92	.336	.266
CB2	1243	.733	.961	2.30	.194	.219
RC1	1254	.725	1.035	2.31	.211	.224
RC2	1069	.678	1.187	2.13	.251	.222
RC3	794	.726	.932	1.84	.196	.211
RC4	811	.675	1.093	1.86	.255	.183
BC1	1016	.549	1.325	2.08	.282	.237

note: SSE – sum of squared errors
R – correlation coefficient
COEVAR – coefficient of variation (dispersion)
SEREST – standard error of estimate
S-U1 – TVA simulation model U1
R-U1 – regression model U1

all data from the beginning to the end of the series are included to arrive at one number. Thus they do not adequately reflect the fact that the bulk of the streamflows are at relatively low values with a few large peaks occurring as a result of the spring runoff. Thus, for instance, the standard error of estimate (which is analogous to the standard deviation) is applicable in describing the variation about the mean of the series but not necessarily low or high flows.

The performance of the TVA model was evaluated in comparison to an alternative model. The alternative model was simply a multiple linear regression of observed monthly streamflows against monthly precipitation, monthly evapotranspiration and a season index. The regressions were prepared for all watersheds covering the same period as the TVA model calibration period. Monthly streamflow predictions from the regression models were compared to similar monthly predictions from the TVA model using the following inequality coefficient (Granger, Newbold, 1977):

$$U1 = \frac{\sqrt{SSE / n}}{\left[\sqrt{SSy / n} + \sqrt{SSx / n}\right]} \qquad (11)$$

where:
- SSE = Sum of squared errors
- SSy = Sum of squared observed flows
- SSx = Sum of squared predicted flows
- n = number of observations

These inequality coefficients are compared in Table 10. In most cases it is shown that the TVA model is indeed better than the alternative model. The exceptions are Chub Lake Watershed 1, Red Chalk 2 and 4 and Blue Chalk Lake 1.

Of course the TVA model gives a complete water balance picture. A water budget may be calculated for any increment

of time such as daily, monthly or annual. A typical moisture budget is given in Table 11. The data used in the table was obtained from a streamflow simulation for Harp Lake 4 for the period Oct. 1979 to May 1980. The left side of the table shows the total monthly watershed input (precipitation) and outputs (evapotranspiration, surface runoff and groundwater runoff) as well as the net. Note that streamflow is the sum of surface and groundwater runoff. See Figure 25. Negative values of evapotranspiration are actually the estimated sublimation quantities and are thus an import during the winter months.

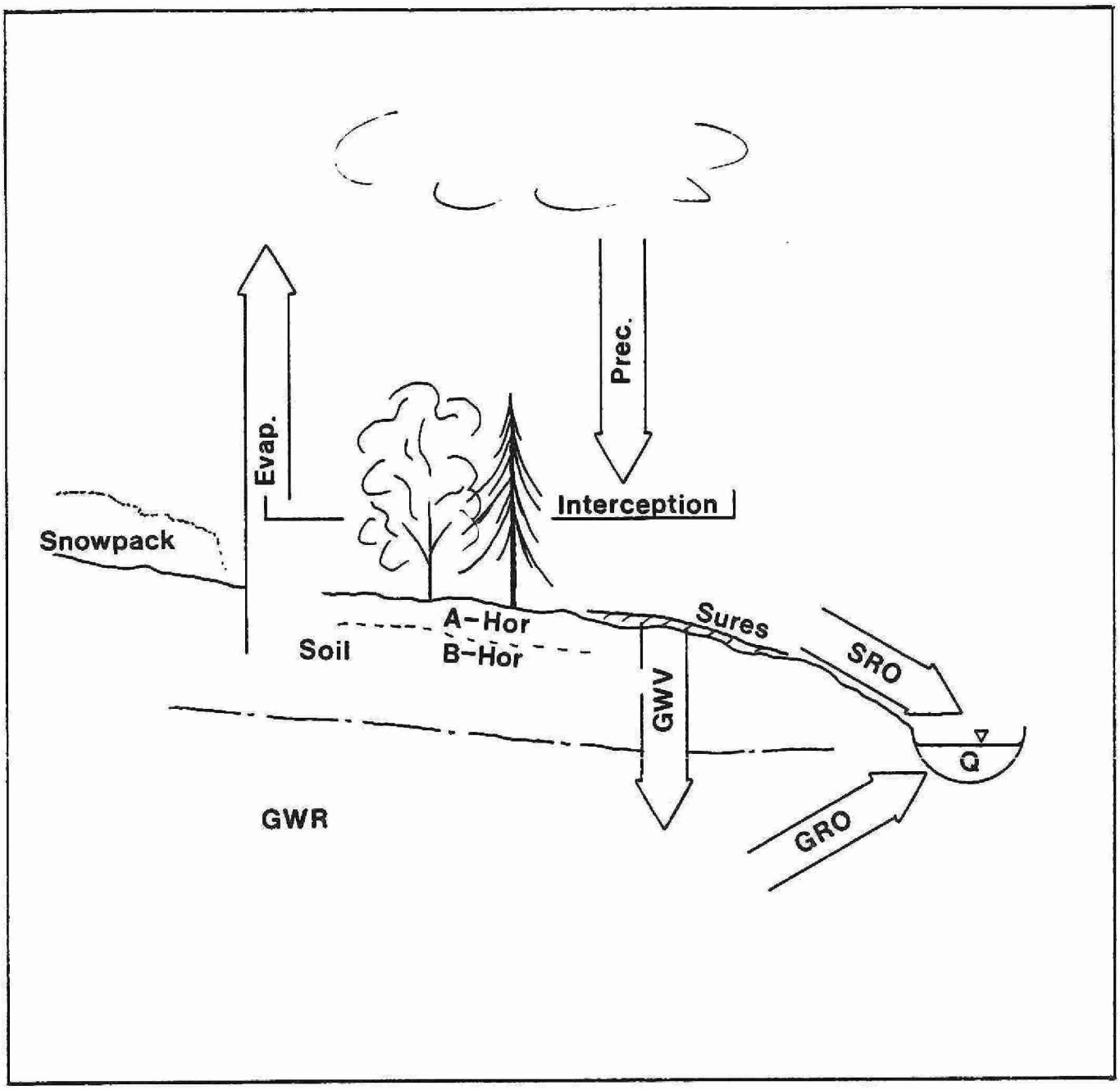
The net amount of water contributed or removed from the watershed must be reflected by the change in storages. The storage compartments on the right side of Table 11 include interception, soil moisture storage, the groundwater reservoir and surface moisture. The change in storage, calculated for the last day of the month, is therefore always equal to the net moisture input. Soil moisture storages ranged from 0 to 402 mm, and groundwater storage ranged from 0 to 301 mm. These ranges are for all simulations combined. Typically the range for any particular watershed is about 200 mm. Note also that these storages are defined differently than in the Holmes and Robertson Model but the values are superficially comparable.

One storage not shown in Table 11 is that for the snowpack. This is because snow accumulation and melt are handled in a separate routine. This in turn is reflected by the precipitation input where snow is not considered a TVA model input until there is snowmelt. Note that during the winter period there is no change in soil moisture. Winter streamflows are correctly modelled by groundwater depletion only.

Table 11. Typical 8 Month Watershed Moisture Budget
Harp Lake #4 Simulation Oct. 1979 - May 1980

Month	Input	Outputs			Net	Storages				Change
	Prec	Evap	SRO	GRO		Inter	Soil	GWR	Sures	
						0	6	240	1	--
Oct.	137	27	24	12	74					
						3	50	264	4	74
Nov.	102	1	56	31	14					
						1	54	266	14	14
Dec.	45	-6	53	49	-51					
						2	54	217	11	-51
Jan.	0	-3	11	40	-48					
						5	54	177	0	-48
Feb.	0	-1	0	31	-30					
						6	54	146	0	-30
Mar.	80	20	55	27	-22					
						0	41	121	22	-22
Apr.	225	14	143	18	50					
						2	54	173	5	50
May	64	78	5	8	-27					
						1	37	168	1	-27
Tot Net	653	130	347	216	-40	1	31	-72	0	-40
Overall Water Balance					-40					-40

note: All units in millimetres of water per unit area.
Definitions are as per Figure 25.



Legend:		
	GWR	Groundwater Reservoir
	GRO	Groundwater Runoff
	GWV	Groundwater Volume
	SRO	Surface Runoff
	Sures	Surface Reservoir
	Soil	Soil A and B Horizons
	Q	Streamflow

Figure 25. Relationship of TVA Model to Watershed System

7.2 STREAMFLOW PREDICTIONS FOR UNGAUGED WATERSHEDS

The problem involved in applying the TVA model for streamflow prediction in ungauged watersheds is that the model parameters must be selected carefully. It was shown in the previous chapter that there are some correlations between the model parameters. These relationships must be preserved to obtain reasonable streamflow predictions.

The method proposed to estimate the value of TVA parameters is the following. A multiple linear regression analysis using 21 estimates of each model parameter (from the calibration of the gauged watersheds) was carried out using various measures of geological and physical properties as the independent variables. These same properties measured in ungauged watersheds provide the data necessary to estimate the TVA model parameters.

The geological properties included surficial percentages of minor till, thin till, ponds, exposed bedrock, outwash plain, beach sand and several combinations of these. The physical properties included the drainage area, the basin length and width, gradients, percentages of woodland and wetland as well as other geological measures. In the regression analysis additional variables were brought in only if they made intuitive sense and only if they improved the correlation coefficient. Several second order terms were also tested.

The results of the regression analysis were mixed. The primary TVA model parameters A and D could not be related to any independent watershed variable, although there were some very weak correlations with the percentage of minor till, the percentage wooded area and the percentage of bedrock. Noting that the TVA parameters for Harp Lake watershed 3 may be considered outliers, this watershed was removed from the

regression analysis. Since this still did not provide any regression capable of explaining the variation beyond 20%, the only option is to use mean values for A and D as follows:

$$A = 0.131 \text{ in.} \quad (12)$$

$$D = 4.204 \text{ in.} \quad (13)$$

The continuity parameter B was found to be strongly related to the A and D parameters. A suitable regression (R squared = 0.915) relating B to these parameters is:

$$B = -0.051 + 0.047\sqrt{A} + 0.036\sqrt{D} \quad (14)$$

The groundwater parameter GWK was too uniform for use in the regression analysis. It may be safely set at a value of 2.

The routing parameter TDSRO was found to be somewhat related to watershed characteristics. In particular its value tended to increase with increases in both the amount of exposed bedrock and the gradient. This is a logical observation because both factors contribute to increased runoff on the day of a storm event. The variation explained by regression was 0.523.

$$TDSRO = 0.063 + 0.0015 \times BR + 0.0081 \times GRAD \quad (15)$$

The surface recession parameter SROK may also be estimated using a meaningful relationship. It appears to decrease with increases in the gradient and with increases in the percentage of area containing ponds or peat. Again both factors would be expected to contribute in this way from a physical point of view. The R squared value was 0.547.

$$SROK = 0.978 - 0.002 \times PP - 0.021 \times GRAD \quad (16)$$

The B-horizon permeability parameter BHORP was expected

to be a strong indicator of the geologic conditions. This was not the case however. This parameter is only weakly related to the amount of bedrock (ie. the more bedrock there is, the smaller the BHORP parameter) and to the amount of wooded area. It may be that wooded areas reflect greater permeability because of the root system. The R squared value for the regression was 0.429.

$$BHORP = 0.188 + 0.007 \times WOOD - 0.005 \times BR \quad (17)$$

The groundwater recession parameters GROKS and GROKW, also could not be predicted by any independent watershed characteristics. These parameters are fairly constant for all watersheds and are therefore safely predicted by their means:

$$GROKS = 0.997 \quad (18)$$
$$GROKW = 0.987 \quad (19)$$

In summary therefore, the only relevant data for estimating TVA model parameters is the percentage of organic (peat and ponded areas), the percentage of wooded land use, the percentage of exposed bedrock and the watershed gradient. The watershed area is required also, but only to estimate water volumes from equivalent depths of water per unit area. These properties are used to calculate the surface runoff parameters and the soil permeability.

7.3 STREAMFLOW PREDICTION RESULTS

To test these relationships streamflows were predicted for 8 miscellaneous watersheds. These watersheds were gauged and thus flow predictions could be compared with actual discharges. The locations of the watersheds are shown on maps at the beginning of this report (Figures 1a and 1b). In addition there are 9 so called B-lakes with a total of 32

distinct drainage areas. Streamflow simulations were carried out for all of these basins using estimated TVA model parameters (see Table 12).

The miscellaneous and B-Lake watersheds had no data for exposed bedrock, therefore, the parameter estimation equations were used with a value of 0 for bedrock. Because the actual streamflows would presumably be unknown, evapotranspiration correction factors were not applied. Initial storages were set at the same values used for calibration at the A-lakes. It was necessary to increase initial groundwater to 101.6 mm. The simulations all started with the 3 month lead-in (July 1, 1976) and ran to Sept. 30, 1980. The simulations for the B-lakes were further extended to Sept. 30, 1981.

Results of these simulations are presented only for the 8 miscellaneous watersheds because only these had comparative data. The annual observed and predicted flows are shown in Table 13 along with the important statistical measures. The number of observations involved are also given for each year. Where the number of observations is given as 122 for the water year, this indicates that observed data begins on June 1, 1977. Statistics are based on these 122 days even though the entire water year was simulated.

Daily predicted streamflows are included in Appendix D. Further information concerning the B-lakes is available from the Ministry of the Environment. Tables 14 and 15 give additional water budgets. Moose Stream is for a 4 year period. Buck Lake 1 is an example of a 5 year annual budget.

The streamflow predictions are generally quite good. There is good agreement of total annual flow for most watersheds for water years 1977, 1979 and 1980. The water year 1978 however is generally poorly predicted. This problem is obviously related to the late spring runoff observed that

Table 12. Miscellaneous and B-Lake Watershed Data
(Physical Properties and Estimated TVA Model Parameters)

Basin	Area sq. km	Organic %	Wooded %	Gradient %	TDSRO	SROK	BHORP in.
Str A	0.213	4.7	97	8.8	0.13428	0.7838	0.867
Str B	0.079	8.1	100	24	0.2574	0.4578	0.888
12M N	4.267	5.5	87	1.8	0.07758	0.9292	0.797
12M S	1.718	12.3	85	1.6	0.07596	0.9198	0.783
Baker	5.716	9.1	74	1	0.0711	0.9388	0.706
Duck	0.473	0	88	1.4	0.07434	0.9486	0.804
Hall2	0.656	0	100	9	0.1359	0.789	0.888
Moose	4.379	2.8	93	2.6	0.08406	0.9178	0.839
Buck1	0.901	0	78	5	0.1035	0.873	0.734
Buck2	0.093	5.9	93	13	0.1683	0.6932	0.839
Buck3	0.776	21.6	61	3	0.0873	0.8718	0.615
Buck4	0.041	0	100	25	0.2655	0.453	0.888
Buck5	0.059	0	100	15	0.1845	0.663	0.888
Sol. 1	0.162	0	87	17	0.2007	0.621	0.797
Sol. 2	0.172	0	100	12	0.1602	0.726	0.888
Sol. 3	0.990	2.5	93	2	0.0792	0.931	0.839
Sol. 4	1.247	0	93	11	0.1521	0.747	0.839
L. Cl1	0.251	0	91	5	0.1035	0.873	0.825
L. Cl2	0.153	0	100	5	0.1035	0.873	0.888
L. Cl3	0.031	0	100	9	0.1359	0.789	0.888
Walk1	0.331	2.6	81	9	0.1359	0.7838	0.755
Walk2	1.025	2.1	89	5	0.1035	0.8688	0.811
Walk3	0.059	0	100	20	0.225	0.558	0.888
Walk4	0.068	0	100	26	0.2736	0.432	0.888
Walk5	0.157	0	100	15	0.1845	0.663	0.888
Walk6	0.203	0	90	6	0.1116	0.852	0.818
Cross	4.323	15.8	84	1	0.0711	0.9254	0.776
Gull1	5.711	19.6	75	1.3	0.07353	0.9115	0.713
Gull2	3.066	11.9	81	2	0.0792	0.9122	0.755
Bigw1	0.207	18.4	74	5	0.1035	0.8362	0.706
Bigw2	1.600	9.6	85	2	0.0792	0.9168	0.783
Bigw3	0.755	0	92	7	0.1197	0.831	0.832
Glen1	0.209	0	100	11	0.1521	0.747	0.888
Glen2	0.324	0	100	7	0.1197	0.831	0.888
Bass1	0.285	5.5	96	4	0.0954	0.883	0.86
Bass2	3.817	14.9	83	2	0.0792	0.9062	0.769
Bass3	0.201	6.3	91	6	0.1116	0.8394	0.825
Bass4	1.927	13.1	79	1.5	0.07515	0.9203	0.741
Bass5	0.299	11.3	89	5	0.1035	0.8504	0.811
Bass6	0.733	9.8	84	4	0.0954	0.8744	0.776

Table 13. TVA Model Simulation Results for Miscellaneous Watersheds

Watershed	Area	W. Year	Obser.	Pred.	SSE	R	#Obs
Stream A	.213	1977	1.134	1.204	977	.814	365
		1978	1.516	0.826	2038	.233	365
		1979	1.776	1.733	1704	.642	365
		1980	2.507	2.767	1754	.706	244
Stream B	.079	1977	0.743	1.208	1493	.805	365
		1978	1.599	0.824	4412	.054	365
		1979	2.130	1.731	7345	.602	365
		1980	3.366	2.767	6835	.651	244
12 Mile N	4.267	1977	0.107	0.452	21	.074	122
		1978	1.408	1.178	843	.514	365
		1979	1.634	1.590	676	.810	365
		1980	2.320	2.488	537	.774	244
12 Mile S	1.718	1977	0.063	0.443	19	.184	122
		1978	1.230	1.177	274	.762	365
		1979	1.546	1.584	742	.857	365
		1980	2.075	2.490	489	.836	244
Baker	5.716	1977	0.937	1.621	623	.784	365
		1978	1.272	1.365	1165	.306	365
		1979	1.621	1.814	850	.740	365
		1980	2.241	2.581	609	.739	244
Duck	.473	1977	0.219	0.498	14	.565	122
		1978	1.432	1.177	884	.397	365
		1979	1.460	1.590	803	.855	365
		1980	1.994	2.456	283	.870	244
Haliburton	.656	1977	0.275	0.561	30	.238	122
		1978	1.394	0.863	1620	.320	365
		1979	1.743	1.282	1102	.772	365
		1980	1.933	1.997	959	.745	244
Moose	4.379	1977	0.858	1.234	230	.908	365
		1978	1.461	0.865	1492	.414	365
		1979	1.674	1.285	639	.823	365
		1980	2.242	1.987	437	.800	244

Table 14. Typical 4 Year Watershed Moisture Budget
Moose, Simulation Oct. 1976 - Sept. 1980

Water Year	Input	Outputs			Net	Storages				Change
	Prec	Evap	SRO	GRO		Inter	Soil	GWR	Sures	
						0	140	104	1	--
1977	854	440	289	162	-37					
						2	106	97	3	-37
1978	945	534	145	171	95					
						2	178	121	2	95
1979	890	563	282	187	-142					
						0	83	78	0	-142
1980	1249	545	398	196	110					
						0	124	145	2	110
Tot	3938	2082	1114	716	26					
Net						0	-16	41	1	26
Overall Water Balance					33					33

note: All units in millimetres of water per unit area.

Table 15. Typical 5 Year Watershed Moisture Budget
Buck 1, Simulation Oct. 1976 - Sept. 1981

Water Year	Input	Outputs			Net	Storages				Change
	Prec	Evap	SRO	GRO		Inter	Soil	GWR	Sures	
						0	143	109	1	--
1977	1049	434	307	179	129					
						2	233	142	5	129
1978	1204	513	308	254	129					
						2	307	197	5	129
1979	1103	560	379	292	-128					
						0	205	177	1	-128
1980	1392	533	414	319	126					
						0	304	202	3	126
1981	1223	543	467	265	-52					
						0	305	146	6	-52
Total Net	5971	2583	1875	1309	204	0	162	37	5	204
Overall Water Balance					204					204

note: All units in millimetres of water per unit area.

year. Because these simulations show similar performance as was obtained in the A-lakes calibration, manual correction methods could be implemented. Further improvement in the calibration would result in further improvement here as well.

Also poorly predicted are the flows for Stream B. This is an obvious case where observed flows are in error. For instance the streamflow for 1980 exceeds the precipitation input. There were no observed flows at either the beginning or the end of this period therefore the excess water could not be a release of stored moisture. Flows observed for the first year, 1977, are comparatively low thus ruling out an error based entirely on the estimation of the drainage area.

8.0 CONCLUSION

This report dealt with three distinct topics. These were the water balance calculations for watersheds and lake systems, the snowmelt modelling and the streamflow modelling using the TVA model. Each of these topics had further sub-topics. Because of the diversity of the research carried out, there were many important observations made and conclusions reached. These were all mentioned as appropriate throughout the report. Major conclusions for each topic were also presented in the executive summary.

It is intended therefore, that this section be used to provide an important observation obtained by looking at all of the hydrologic analysis as a whole. A common element throughout the entire report were the six A-lakes. Most analyses and modelling included these lakes and their watersheds. The results of major analysis tasks can be summarized by dividing the lakes into two groups.

The first goup of lakes would include Chub, Red Chalk and Blue Chalk Lakes. These lakes are located in a cluster near the Dorset meteorological station. The second group consisting of Harp, Jerry and Dickie Lakes, would define the north-south limits of all six study lakes. Because of their respective locations this grouping classifies the lakes according to the method of obtaining meteorological data. Harp, Jerry and Dickie were all given precipitation, temperature and other available data using an interpolation method involving two meteorological stations. Chub, Red Chalk and Blue Chalk used the nearest station criteria.

The first major analysis task was watershed moisture budgeting. A finding related to all watersheds was that losses were highly variable among the 21 watersheds. A feasible range of watershed losses was defined by applying the

Holmes - Robertson soil moisture budget technique. Only 6 individual watersheds fell within this range. The watersheds involved included three from Harp Lake, one from Jerry Lake and two from Dickie Lake. All watersheds from Chub, Red Chalk and Blue Chalk exceeded the feasible range of losses. Calculated losses exceeding a certain limit implies that precipitation is overestimated or that streamflows are greater than actually measured provided that storages remain constant.

The next task was lake system moisture budgeting. The finding here was that all but Dickie Lake had moisture deficits, that is outputs exceeded inputs. The extent of this error was less than one metre for Harp and Jerry Lakes but more than one metre for Chub, Red Chalk and Blue Chalk Lakes. The water deficit could be the result of errors in any term in the water balance equation but here precipitation would have to be underestimated, a contradiction with the watershed loss estimations. That inflows are underestimated is, however, still consistent. Other contributions to the water budget error could come from overestimation of the exports such as the evaporation or from the outflows.

The TVA model watershed calibration and simulation also fits into this pattern. Calibrations were carried out on all watersheds using the same methodology. However, in predicting flows for the validation period the four watersheds that failed to achieve an inequality coefficient better than an alternative model belong to Chub, Red Chalk and Blue Chalk Lakes. Thus Harp, Jerry and Dickie Lakes are likely to be generally more reliable in terms of conclusions for any hydrologic analysis purposes.

9.0 RECOMMENDATIONS

1 - GENERAL DATA REQUIREMENTS

Data requirements for comprehensive watershed modelling tend to be extensive. Any improvements in data quality and quantity improve the modelling capability and allow for better verification. It is recognized that there is a cost involved. Priority should be given to the following items:

1.1 Obtaining and maintaining a pan evaporation station in the Dorset Area.

1.2 Verifying the accuracy of all streamflow gauging stations by checking for by-pass losses, checking the weir rating curves at high flows, and verifying the drainage areas particularly for small basins.

1.3 More information concerning moisture fluctuations in both soil and groundwater reservoirs is needed. Such information would contribute positively to water balance calculations and to model development and verification. Ideally this would include continuous monitoring of a well at a representative location.

1.4 Complete soil surveys are needed for the calibrated watersheds. In particular soil depths, moisture capacities and permeabilities are needed. This would contribute to soil moisture hydrology for water budgets as well as model parameter estimation.

1.5 Other routine data collection efforts should be continued. These include meteorological data such as daily precipitation, temperature, dew point temperature, sunshine ratios as well as hydrologic data such as streamflows and lake levels.

2 - SNOWMELT SURVEY AND MODELLING

This topic was dealt with separately but recommendations also include the obtaining of more data.

2.1 Future snow surveys should cover a wider range of sampling locations, for instance at other lakes. Included in this should be a determination of the amount of snow contributed directly to lake surfaces.

2.2 There is some additional information that could be obtained during future snow surveys. One is snowpack temperature and temperature profile. The other is some measure of the interactions at the ground and snow interface.

2.3 The extent of ground frost and or the amount of heat added to the snowpack should be determined. Also the runoff path that the snowmelt takes should be determined.

2.4 Alternative methods of observing snowpack should be investigated. These might include the use of snow pillows or neutron probes. Remote methods may include satellite sensing.

2.5 Snowmelt models such as the MOEHYDR model have various data requirements. This often includes some form of radiation data. The most common measures are global and net radiation.

2.6 The recommended snowmelt model is the WINTER subroutine. Verification of this routine should be carried out using additional data from different winters and data from different locations.

2.7 The MOEHYDR model would be ideal for future use, however data requirements must be fulfilled from local observations. The main missing component is net radiation data.

3 - STREAMFLOW MODELLING

There are some obvious inaccuracies in the TVA model. Part of the error can be traced to errors in any of the hydrological input components.

3.1 Some re-evaluation of the TVA model is recommended. The area of concern is that at present seasons are fixed in the model's time scale. Thus the use of certain seasonal parameters depends on this arbitrary selection of seasons. It is recognized however that flow phenomena follows a pattern of meteorological events and not necessarily the calendar. The approach to take in the TVA is to provide a self detecting seasonal parameter based on cumulative or moving average temperature or other such methods.

3.2 Depending on the availability of additional data, further analysis is required to estimate model parameters based on physical watershed properties. At this moment there appears to be insufficient resolution to estimate the A, D, and GWK parameters. Further research could also provide a direct method of estimating the groundwater recession constants.

3.3 The use of the TVA model to predict steamflows for ungauged watersheds was demonstrated. Use of the methodology should however, be restricted to small drainage basins because small basins were used to derive the parameters. Future research should be directed

towards chaining the TVA model, that is, estimating streamflows for small unit areas and linking separate basins through a routing model.

3.4 It is recommended that chemical data be made available to begin the work on interfacing water quality and chemical budget models. Preliminary work in this area would greatly aid in the understanding of the hydrology because chemical mass balances determined independently could contribute to the estimation of water balances. Also the use of data on conservative chemical elements may be valuable as tracers in the investigation of relative contributions of surface runoff, groundwater runoff and soil water.

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Appendix A

Monthly Streamflows, Estimated Contribution from Ungauged Areas and Lake Outflows (millimetres per unit area) for:

Harp Lake
Jerry Lake
Chub Lake
Dickie Lake
Blue Chalk Lake
Red Chalk Lake

Harp Lake Monthly Flow Summary

Month	3	3a	4	5	6	6a	Un	Out
6	12.1	8.6	8.9	4.2	3.1	1.3	6.4	0.8
7	48.0	22.7	17.0	0.7	6.2	4.6	16.5	5.9
8	2.1	1.3	4.3	8.6	0.9	0.2	2.9	0.7
9	8.9	0.7	4.5	0.6	1.3	0.2	2.7	1.4
10	12.7	2.5	6.7	0.7	4.4	1.1	4.7	0.6
11	24.2	4.8	12.4	36.9	10.3	6.4	15.8	4.0
12	23.3	8.0	13.5	29.1	7.2	2.6	13.9	19.3
1	20.4	5.4	11.7	4.9	3.8	2.8	8.2	13.3
2	19.9	4.6	11.8	4.4	3.4	2.4	7.7	11.9
3	148.1	113.3	114.4	189.8	80.2	173.5	136.5	94.4
4	123.2	81.3	109.4	126.3	73.7	70.2	97.3	145.8
5	23.8	9.1	15.5	15.4	6.8	9.7	13.4	9.0
6	4.8	1.7	3.3	2.5	0.8	0.5	2.3	0.0
7	2.1	1.4	5.5	0.9	0.7	1.1	2.0	0.0
8	3.5	0.3	2.9	2.5	1.1	0.7	1.8	0.0
9	11.2	12.0	9.5	15.3	7.7	1.2	9.5	1.2
10	49.1	46.6	27.8	47.2	24.4	27.3	37.1	37.7
11	75.4	77.0	60.0	96.2	36.0	61.0	67.6	88.3
12	42.7	61.3	29.9	41.6	18.9	28.5	37.1	61.2
1	7.8	17.6	14.3	8.9	5.8	2.7	9.5	23.6
2	0.3	14.0	8.8	1.8	3.8	0.3	4.8	10.9
3	15.6	20.7	11.9	4.0	4.5	1.3	9.7	11.7
4	224.7	284.1	190.6	147.4	128.7	165.1	190.1	140.6
5	65.9	51.5	46.2	47.1	30.0	44.2	47.5	64.6
6	19.5	9.8	17.3	13.6	8.0	2.7	11.8	15.6
7	8.0	1.3	12.9	6.5	1.0	0.5	5.0	0.2
8	25.4	12.1	30.0	20.1	10.7	6.7	17.5	12.7
9	22.2	14.3	31.4	19.8	16.2	7.8	18.6	29.7
10	47.4	36.9	52.2	36.1	37.5	21.0	38.5	17.4
11	101.6	102.5	70.6	50.9	47.1	33.4	67.7	64.8
12	30.5	38.4	33.8	37.3	16.7	36.2	32.2	48.8
1	11.0	19.0	11.7	12.3	8.6	13.8	12.7	35.8
2	0.9	13.4	14.9	11.0	4.2	7.0	8.6	19.1
3	152.4	201.1	159.7	147.8	71.5	145.9	146.4	135.9
4	151.5	114.9	149.6	127.6	122.7	108.2	129.1	144.7
5	68.7	66.2	71.7	70.2	37.3	56.1	61.7	92.4
6	15.8	8.0	10.6	10.5	5.0	6.3	9.4	22.4
7	7.5	1.7	4.9	3.3	3.5	0.8	3.6	0.0
8	15.0	2.5	7.8	3.3	3.2	1.0	5.5	0.2
9	3.3	2.3	9.4	7.2	2.5	4.0	4.8	0.1
10	44.3	25.6	38.8	37.1	20.6	30.9	32.9	33.7
11	101.4	103.3	95.0	106.8	55.3	72.6	89.1	86.2
12	69.0	53.6	59.9	63.0	38.9	48.4	55.5	80.8
1	42.7	37.2	41.2	57.1	29.4	33.6	40.2	59.4
2	4.1	5.1	1.0	9.8	4.4	11.0	5.9	25.5
3	73.4	75.9	53.1	86.7	30.7	49.5	61.5	42.9
4	215.1	187.3	211.5	282.5	113.9	168.8	196.5	215.5
5	44.4	27.5	22.0	24.2	16.8	31.2	27.7	24.0
Year			Annual Totals					
76	131.3	48.6	67.2	80.8	33.4	16.4	62.9	32.8
77	524.2	414.0	401.7	547.0	257.5	378.9	420.5	462.6
78	568.9	603.2	520.1	393.5	310.0	321.9	452.9	440.7
79	640.8	611.6	634.1	600.1	373.3	495.0	559.2	651.4
80	379.7	333.0	328.7	460.3	195.2	294.1	331.8	367.3
Total	2244.9	2010.4	1951.8	2081.7	1169.4	1506.3	1827.4	1954.8

Jerry Lake Monthly Flow Summary

Month	1	3	4	Un	Out
6	16.1	7.8	5.4	9.8	12.0
7	32.9	12.2	10.1	18.4	13.1
8	10.8	5.2	2.3	6.1	7.2
9	4.5	10.8	5.4	6.9	3.4
10	12.4	12.1	10.4	11.6	8.1
11	22.1	17.2	9.0	16.1	10.9
12	23.7	18.5	8.6	16.9	15.9
1	4.1	16.8	6.8	9.2	8.7
2	4.3	16.5	1.7	7.5	6.7
3	58.9	105.8	133.7	99.5	111.7
4	106.3	146.5	84.2	112.3	180.2
5	18.0	30.3	19.0	22.4	16.5
6	1.6	4.6	1.7	2.6	4.2
7	1.5	2.8	2.0	2.1	3.8
8	1.6	4.2	2.1	2.6	2.8
9	11.5	14.8	8.2	11.5	6.7
10	41.8	30.0	24.3	32.0	24.5
11	60.4	56.0	40.7	52.4	50.1
12	33.9	31.8	35.6	33.8	38.2
1	11.4	18.6	13.7	14.6	21.6
2	9.0	13.5	6.1	9.5	14.5
3	10.9	36.7	10.8	19.5	15.5
4	177.2	132.3	143.7	151.1	166.9
5	56.9	66.4	54.2	59.2	72.8
6	17.5	14.8	13.6	15.3	18.2
7	5.5	7.2	4.7	5.8	10.0
8	19.5	16.1	15.4	17.0	11.5
9	15.4	32.0	11.4	19.6	14.0
10	30.2	63.1	26.2	39.8	40.4
11	45.8	46.1	27.3	39.7	55.6
12	34.6	47.1	21.5	34.4	41.9
1	22.4	38.6	14.6	25.2	29.7
2	11.6	25.8	8.1	15.2	17.5
3	137.6	92.9	103.5	111.3	121.8
4	134.4	129.6	180.5	148.2	171.0
5	52.5	56.6	63.0	57.4	74.9
6	10.8	14.0	13.0	12.6	17.4
7	9.1	5.5	5.5	6.7	5.9
8	9.3	6.7	3.9	6.6	7.1
9	10.3	6.8	7.1	8.1	7.8
10	30.8	33.8	24.4	29.7	27.4
11	81.9	77.9	62.5	74.1	62.6
12	55.2	53.2	37.4	48.6	53.9
1	39.7	43.8	28.7	37.4	45.5
2	8.1	16.4	9.1	11.2	18.5
3	51.7	54.2	78.7	61.5	39.6
4	172.4	200.3	211.1	194.6	174.2
5	27.5	36.8	29.5	31.3	30.4
Year		Annual Totals			
76	122.5	83.8	51.2	85.8	70.6
77	343.9	460.1	360.0	388.0	454.1
78	433.9	493.9	348.6	425.5	482.9
79	565.9	541.4	523.5	543.6	597.0
80	299.4	351.5	357.1	336.0	308.2
Total	1765.6	1930.7	1640.4	1778.9	1912.8

Chub Lake Monthly Flow Summary

Month	1	2	Un	Out
6	3.5	1.4	2.4	11.4
7	4.4	4.2	4.3	6.4
8	0.8	0.6	0.7	1.7
9	0.6	0.0	0.3	0.3
10	1.1	4.3	2.7	0.1
11	7.4	31.6	19.5	2.8
12	11.7	9.4	10.6	9.4
1	1.6	1.6	1.6	5.4
2	1.2	0.9	1.1	1.9
3	110.2	166.1	138.2	95.8
4	108.1	141.4	124.8	114.8
5	9.5	9.6	9.6	21.2
6	2.6	6.1	4.3	3.5
7	2.9	6.3	4.6	2.0
8	1.9	1.7	1.8	6.6
9	8.1	30.1	19.1	4.8
10	32.4	67.0	49.7	49.6
11	32.4	76.4	54.4	59.1
12	21.9	69.4	45.7	36.3
1	10.4	26.2	18.3	27.9
2	5.0	10.0	7.5	12.8
3	9.5	16.1	12.8	14.4
4	112.6	159.0	135.8	128.5
5	33.4	64.3	48.9	81.2
6	7.8	10.3	9.1	11.5
7	0.7	0.4	0.6	1.2
8	1.5	7.3	4.4	3.6
9	3.3	12.3	7.8	8.3
10	12.8	27.4	20.1	19.5
11	26.5	47.9	37.2	31.7
12	20.7	33.6	27.2	43.4
1	15.4	19.3	17.4	36.9
2	6.7	10.4	8.6	13.5
3	127.1	135.7	131.4	125.3
4	115.3	178.4	146.9	166.5
5	25.6	40.4	33.0	53.3
6	7.6	13.8	10.7	21.0
7	1.3	3.8	2.6	3.2
8	5.5	13.1	9.3	5.7
9	3.5	11.2	7.4	11.3
10	28.4	63.7	46.1	29.2
11	58.1	101.1	79.6	107.1
12	40.7	68.5	54.6	69.0
1	36.7	36.2	36.5	57.0
2	7.5	6.8	7.2	15.9
3	34.6	53.5	44.1	40.2
4	85.9	219.3	152.6	176.7
5	19.7	35.2	27.5	30.9

Annual Totals

Year				
76	29.5	51.5	40.5	32.1
77	332.8	576.6	454.7	401.0
78	244.2	414.8	329.5	384.0
79	435.2	659.4	547.3	642.0
80	184.4	351.0	267.7	320.7
Total	1226.1	2053.3	1639.7	1779.8

Dickie Lake Monthly Flow Summary

Month	5	6	8	10	11	Un	Out
6	7.0	12.7	4.7	6.6	3.2	6.8	8.5
7	15.5	16.1	2.9	11.5	5.9	10.4	9.0
8	5.7	5.8	0.0	8.4	1.7	4.3	2.9
9	5.2	4.1	0.0	6.0	1.6	3.4	0.3
10	9.8	7.4	6.7	22.3	4.4	10.1	0.2
11	23.9	12.8	13.3	40.4	14.2	20.9	12.2
12	31.3	25.6	26.3	42.1	21.6	29.4	37.5
1	6.9	9.7	7.8	21.4	9.6	11.1	16.1
2	2.0	3.6	0.3	13.2	6.1	5.0	10.1
3	128.9	173.5	66.2	147.4	121.0	127.4	78.1
4	239.7	100.3	118.3	161.9	98.2	143.7	151.6
5	33.6	16.8	14.9	11.2	10.3	17.4	24.9
6	1.1	0.3	1.0	4.8	0.0	1.4	2.0
7	2.4	1.7	2.2	1.5	0.0	1.6	0.0
8	4.2	6.9	1.1	7.2	0.2	3.9	0.0
9	13.9	11.0	16.8	22.1	11.6	15.1	2.5
10	50.7	47.2	49.5	51.3	60.1	51.8	52.3
11	64.4	58.4	63.4	68.6	50.5	61.1	50.4
12	37.5	37.0	42.3	40.9	42.2	40.0	48.9
1	23.2	21.8	17.3	19.3	19.7	20.3	29.3
2	7.5	6.9	7.4	9.1	5.2	7.2	13.3
3	11.6	12.6	6.6	15.2	10.3	11.3	12.5
4	186.2	198.3	92.0	198.0	135.6	162.0	111.5
5	59.0	61.2	22.1	61.6	52.9	51.4	83.8
6	14.7	15.3	5.5	10.7	10.7	11.4	14.2
7	0.4	4.7	0.0	0.1	0.0	1.0	2.5
8	7.4	9.2	1.5	10.7	5.1	6.8	1.0
9	13.4	16.8	5.4	9.1	9.6	10.9	2.1
10	24.7	24.9	21.4	26.0	23.4	24.1	14.6
11	42.5	39.2	31.5	34.5	45.8	38.7	58.4
12	39.3	35.9	25.1	34.7	29.1	32.8	51.2
1	24.8	22.0	4.9	20.3	12.3	16.9	42.0
2	9.4	11.5	1.8	13.9	8.3	9.0	18.2
3	132.1	151.7	101.6	185.8	137.9	141.8	83.8
4	202.7	219.2	78.0	237.4	175.5	182.6	139.6
5	40.4	43.4	28.2	54.8	44.6	42.3	68.0
6	9.1	9.5	17.5	20.0	19.6	15.1	20.2
7	1.4	2.0	2.0	0.8	3.2	1.9	0.2
8	14.5	16.9	8.2	16.3	11.0	13.4	2.7
9	8.0	8.2	5.7	6.7	10.8	7.9	5.8
10	57.5	39.4	64.3	69.3	47.7	55.6	38.3
11	89.7	98.2	98.1	113.6	78.4	95.6	87.2
12	47.8	61.3	50.4	52.6	51.4	52.7	74.5
1	41.8	34.6	40.5	43.6	37.9	39.7	50.8
2	8.5	7.6	4.7	11.9	6.3	7.8	15.3
3	98.0	49.2	69.4	70.1	32.3	63.8	40.1
4	250.9	214.6	173.0	253.0	178.3	214.0	170.1
5	29.3	27.6	26.8	33.3	25.0	28.4	31.7
Year			Annual Totals				
76	98.4	84.5	53.9	137.3	52.6	85.3	70.6
77	585.3	466.4	383.8	551.5	409.8	479.4	436.9
78	429.9	446.8	235.8	429.0	347.3	377.8	394.4
79	637.4	683.3	460.7	791.5	600.9	634.8	580.5
80	428.5	333.6	314.4	411.9	279.9	353.7	308.0
Total	2179.5	2014.6	1448.6	2321.2	1690.4	1930.9	1790.4

Blue Chalk Lake Monthly Flow Summary

Month	1	Un	Out
6	0.1	3.8	7.8
7	0.3	4.2	4.7
8	0.3	4.2	1.0
9	0.0	2.5	0.7
10	0.0	3.3	1.0
11	3.2	15.7	13.4
12	4.1	18.4	28.8
1	4.9	7.2	16.0
2	0.5	3.8	13.7
3	164.5	141.8	117.5
4	123.5	112.9	149.4
5	14.3	13.6	9.8
6	6.6	5.2	0.8
7	0.4	3.9	0.0
8	0.6	4.1	0.0
9	0.8	7.4	0.0
10	13.8	41.4	0.0
11	44.9	58.0	66.9
12	17.6	43.6	68.7
1	9.8	21.0	31.5
2	2.5	10.3	16.4
3	3.4	13.2	31.3
4	84.3	132.6	113.6
5	11.6	45.7	73.6
6	0.4	10.5	25.7
7	0.3	5.2	0.7
8	7.1	9.4	10.1
9	3.0	10.8	9.2
10	21.2	43.0	31.1
11	41.1	34.0	26.5
12	20.5	34.3	47.5
1	10.6	24.8	35.1
2	1.7	16.4	24.8
3	67.5	114.4	134.0
4	34.6	122.7	140.9
5	23.5	42.8	58.0
6	7.1	11.2	16.7
7	1.0	3.8	0.9
8	2.1	5.7	8.9
9	3.6	5.5	13.4
10	32.5	47.2	47.6
11	90.5	85.2	86.2
12	50.9	54.8	107.5
1	22.0	36.3	47.8
2	1.2	10.3	15.8
3	43.8	44.9	60.4
4	128.6	151.3	142.4
5	13.6	22.4	33.6
Year	Annual Totals		
76	8.0	52.2	57.6
77	392.5	442.8	442.8
78	205.1	370.0	417.4
79	325.7	534.6	674.0
80	209.1	265.1	300.0
Total	1140.4	1664.6	1891.9

Red Chalk Lake Monthly Flow Summary

Month	1	2	3	4	Un	BCO	Out
6	2.9	0.5	9.9	5.8	4.8	7.8	11.0
7	3.9	3.4	9.3	4.1	5.2	4.7	1.4
8	0.2	0.0	14.5	5.8	5.1	1.0	1.1
9	1.3	0.0	5.4	6.0	3.2	0.7	0.5
10	1.1	1.3	5.7	8.6	4.2	1.0	0.8
11	14.9	23.8	18.7	17.9	18.8	13.4	15.7
12	23.7	26.2	19.2	18.7	22.0	28.8	35.2
1	11.3	1.5	9.8	8.5	7.8	16.0	18.1
2	2.6	2.3	8.5	5.1	4.6	13.7	15.3
3	184.3	126.4	123.5	110.3	136.1	117.5	95.9
4	157.9	92.6	124.8	65.6	110.2	149.4	154.9
5	8.7	7.8	23.7	13.7	13.5	9.8	22.2
6	1.4	0.1	13.2	4.5	4.8	0.8	1.2
7	1.0	0.4	12.8	4.7	4.7	0.0	2.8
8	2.3	0.0	13.2	4.5	5.0	0.0	2.3
9	5.5	10.1	12.2	8.2	9.0	0.0	2.9
10	45.9	51.4	52.8	43.1	48.3	0.0	49.0
11	72.2	60.1	60.4	52.2	61.2	66.9	69.5
12	36.1	35.1	74.1	55.2	50.1	68.7	72.8
1	17.2	8.5	35.8	33.9	23.9	31.5	49.0
2	8.7	2.3	23.8	14.4	12.3	16.4	19.8
3	16.4	10.5	19.2	16.5	15.7	31.3	12.0
4	179.5	134.8	132.7	131.6	144.7	113.6	92.0
5	56.2	51.3	63.3	46.3	54.3	73.6	66.3
6	11.4	8.5	17.7	14.3	13.0	25.7	23.2
7	1.9	0.0	20.4	3.2	6.4	0.7	2.5
8	2.6	18.1	13.7	5.6	10.0	10.1	7.3
9	10.5	18.1	12.1	10.5	12.8	9.2	12.3
10	83.9	59.9	20.5	29.3	48.4	31.1	27.6
11	11.2	44.7	28.9	43.9	32.2	26.5	35.3
12	26.8	38.3	40.3	45.5	37.7	47.5	60.1
1	28.3	19.8	33.7	31.6	28.4	35.1	60.0
2	25.9	7.5	30.9	15.8	20.0	24.8	29.2
3	119.7	116.9	145.2	122.6	126.1	134.0	132.4
4	185.4	150.3	138.8	104.2	144.7	140.9	148.0
5	47.3	49.4	55.0	39.0	47.7	58.0	67.0
6	12.7	5.2	21.8	9.0	12.2	16.7	23.6
7	1.8	0.4	11.1	4.9	4.6	0.9	2.4
8	1.7	5.5	13.9	5.4	6.6	8.9	10.5
9	2.6	4.4	11.7	5.3	6.0	13.4	8.2
10	66.6	70.1	22.6	44.2	50.9	47.6	32.0
11	104.6	67.5	92.6	70.9	83.9	86.2	91.5
12	58.9	52.4	66.1	45.9	55.8	107.5	81.8
1	38.5	34.2	47.7	38.9	39.8	47.8	61.4
2	10.5	5.1	16.3	18.2	12.5	15.8	25.0
3	50.3	36.5	50.8	43.3	45.2	60.4	47.5
4	193.5	159.8	146.6	127.9	157.0	142.4	171.1
5	21.7	12.6	38.9	25.3	24.6	33.6	39.0
Year			Annual Totals				
76	48.0	55.2	82.7	66.9	63.2	57.6	65.8
77	529.2	387.8	529.0	375.6	455.4	442.8	506.9
78	426.3	395.0	428.4	395.0	411.2	417.4	407.5
79	655.5	549.4	643.4	498.8	586.8	674.0	686.6
80	314.5	248.2	300.3	253.6	279.2	300.0	343.9
Total	1973.5	1635.6	1983.8	1589.9	1795.7	1891.9	2010.7

Appendix B

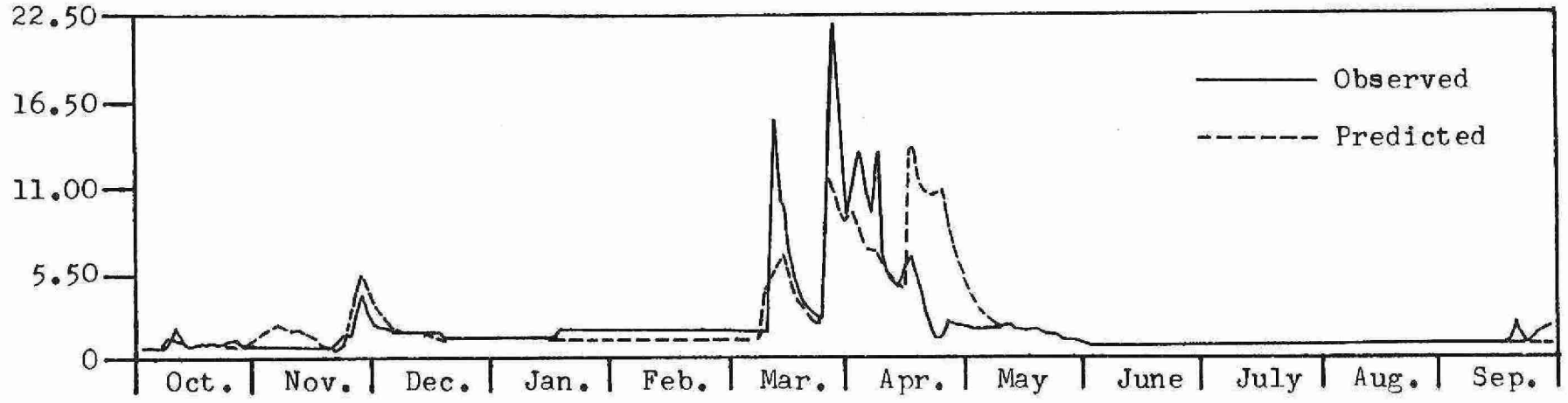
Daily Streamflow Simulations (from TVA Model Calibration) for Water Years 1977, 1978, 1979 for:

Harp Lake
Jerry Lake
Dickie Lake
Chub Lake
Red Chalk Lake
Blue Chalk Lake

DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - HARP LAKE #3

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.35	0.29	2.63	0.12	0.01	0.00	8.21	2.72	0.32	0.14	0.10	0.09
2	0.34	0.54	2.12	0.11	0.01	0.00	8.59	2.50	0.30	0.13	0.10	0.09
3	0.32	0.79	1.76	0.10	0.01	0.00	9.17	2.31	0.28	0.13	0.10	0.09
4	0.31	1.01	1.50	0.09	0.01	0.00	7.47	2.13	0.27	0.13	0.10	0.09
5	0.30	1.20	1.31	0.08	0.01	0.00	6.51	1.98	0.26	0.16	0.10	0.08
6	0.65	1.46	1.16	0.08	0.01	0.00	6.43	1.83	0.24	0.15	0.10	0.08
7	0.55	1.65	1.04	0.07	0.01	0.00	5.46	1.69	0.23	0.15	0.10	0.08
8	0.52	1.73	0.94	0.07	0.00	0.00	4.74	1.56	0.22	0.14	0.10	0.08
9	0.49	1.75	0.85	0.06	0.00	0.00	4.17	1.45	0.21	0.14	0.10	0.08
10	0.47	1.74	0.77	0.06	0.00	0.04	3.74	1.34	0.20	0.14	0.09	0.08
11	0.44	1.68	0.71	0.05	0.00	0.60	4.11	1.24	0.20	0.13	0.09	0.08
12	0.42	1.60	0.65	0.05	0.00	3.69	9.09	1.15	0.19	0.13	0.09	0.08
13	0.40	1.48	0.59	0.04	0.00	4.33	12.90	1.07	0.18	0.13	0.09	0.08
14	0.38	1.35	0.54	0.04	0.00	4.70	12.82	1.00	0.18	0.12	0.09	0.08
15	0.38	1.21	0.50	0.04	0.00	6.56	11.23	0.93	0.17	0.12	0.09	0.08
16	0.36	1.34	0.46	0.03	0.00	6.91	10.09	0.86	0.17	0.12	0.09	0.08
17	0.34	1.83	0.42	0.03	0.00	6.49	9.57	0.80	0.16	0.11	0.08	0.08
18	0.33	1.59	0.39	0.03	0.00	4.93	9.37	0.75	0.16	0.11	0.08	0.07
19	0.32	1.46	0.35	0.03	0.00	3.89	9.59	0.70	0.15	0.11	0.10	0.07
20	0.31	1.21	0.33	0.02	0.00	3.17	10.09	0.65	0.15	0.11	0.09	0.15
21	0.37	0.99	0.30	0.02	0.00	2.67	10.21	0.61	0.15	0.11	0.11	0.13
22	0.45	0.80	0.27	0.02	0.00	2.29	9.42	0.57	0.14	0.10	0.11	0.13
23	0.41	0.64	0.25	0.02	0.00	2.01	8.13	0.53	0.14	0.10	0.10	0.12
24	0.39	0.51	0.23	0.02	0.00	1.79	7.06	0.50	0.13	0.10	0.10	0.12
25	0.38	0.40	0.21	0.02	0.00	1.60	6.16	0.47	0.13	0.10	0.10	0.11
26	0.36	3.58	0.20	0.01	0.00	1.45	5.39	0.44	0.13	0.10	0.10	0.15
27	0.35	5.75	0.18	0.01	0.00	1.44	4.71	0.41	0.12	0.10	0.09	0.16
28	0.33	5.42	0.17	0.01	0.00	5.38	4.12	0.39	0.16	0.09	0.09	0.15
29	0.32	4.20	0.15	0.01	0.0	7.26	3.59	0.37	0.15	0.09	0.10	0.19
30	0.31	3.30	0.14	0.01	0.0	11.52	3.11	0.35	0.14	0.09	0.10	0.17
31	0.30	0.0	0.13	0.01	0.0	10.25	0.0	0.33	0.0	0.11	0.09	0.0
TOT	11.96	52.50	21.24	1.35	0.10	92.98	225.24	33.61	5.63	3.69	2.98	3.11

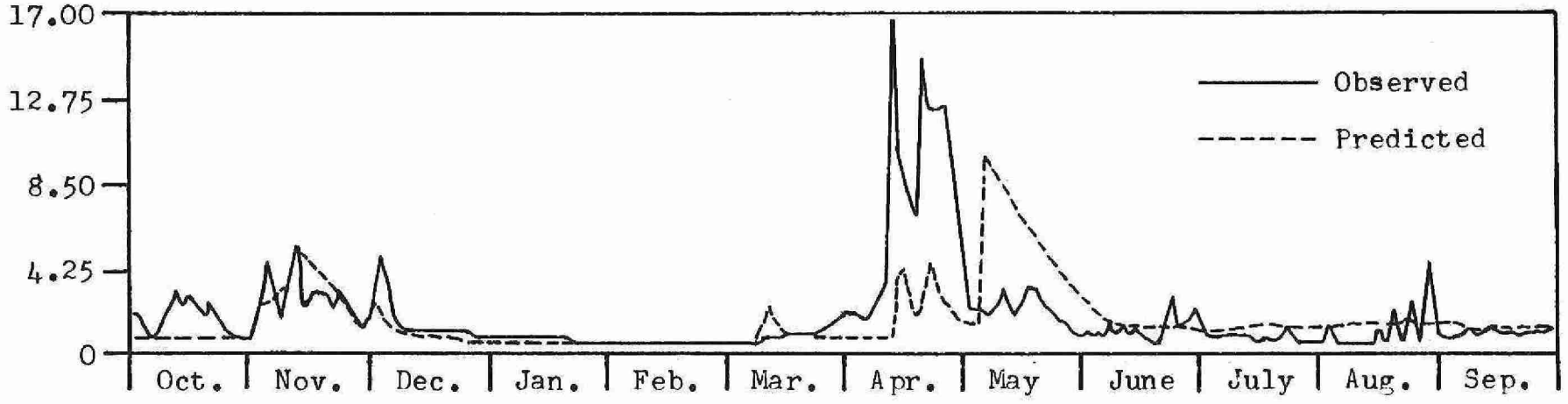
TOTAL FOR WATER YEAR = 454.39



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - HARP LAKE #3

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.26	0.24	1.99	0.10	0.01	0.00	0.27	1.37	1.69	0.84	0.65	1.05
2	0.23	0.44	2.82	0.09	0.01	0.00	0.25	1.30	1.58	0.80	0.97	1.01
3	0.22	2.21	2.14	0.09	0.01	0.00	0.23	1.23	1.49	0.77	0.86	0.96
4	0.21	2.48	1.69	0.08	0.01	0.00	0.21	1.20	1.62	0.74	0.82	0.92
5	0.20	2.70	1.38	0.07	0.01	0.00	0.20	1.55	1.47	0.71	0.79	0.89
6	0.19	2.87	1.16	0.07	0.00	0.00	0.19	4.19	1.38	0.69	0.76	0.87
7	0.18	3.05	1.00	0.06	0.00	0.00	0.31	3.79	1.69	0.67	0.73	0.83
8	0.51	3.18	0.87	0.06	0.00	0.00	0.76	8.30	1.51	0.64	0.70	0.80
9	0.42	3.17	0.78	0.05	0.00	0.00	0.57	10.05	1.42	0.62	0.68	0.79
10	0.39	4.54	0.70	0.05	0.00	0.00	0.44	8.14	1.34	0.60	0.65	0.84
11	0.49	5.72	0.63	0.04	0.00	0.00	1.63	7.54	1.26	0.58	0.63	0.84
12	0.53	5.74	0.57	0.04	0.00	0.00	4.05	7.38	2.08	0.57	0.61	0.80
13	0.48	5.32	0.52	0.04	0.00	0.00	4.29	6.84	1.74	0.60	0.59	0.78
14	0.45	4.85	0.48	0.03	0.00	1.85	4.48	6.30	1.64	0.57	0.57	1.54
15	0.58	4.41	0.44	0.03	0.00	2.65	3.54	5.82	1.54	0.55	0.56	1.30
16	0.52	4.48	0.40	0.03	0.00	1.99	2.84	5.38	1.45	0.54	1.02	1.24
17	0.49	4.82	0.37	0.03	0.00	1.55	2.33	4.98	1.37	0.53	0.88	1.18
18	0.46	4.19	0.34	0.02	0.00	1.25	2.32	4.61	1.32	0.51	0.88	1.14
19	0.44	3.65	0.31	0.02	0.00	1.04	3.56	4.27	1.25	0.51	1.02	1.09
20	0.41	3.09	0.28	0.02	0.00	0.89	4.57	3.96	1.18	0.49	0.94	1.28
21	0.39	2.63	0.26	0.02	0.00	0.77	4.41	3.67	1.12	0.48	0.90	1.28
22	0.37	2.35	0.24	0.02	0.00	0.68	3.70	3.41	1.06	0.71	0.86	1.20
23	0.35	1.94	0.22	0.02	0.00	0.61	3.15	3.17	1.01	0.64	1.32	1.14
24	0.34	1.60	0.20	0.01	0.00	0.55	2.79	2.94	0.96	0.62	1.15	1.09
25	0.32	1.32	0.19	0.01	0.00	0.50	2.63	2.74	0.92	0.60	1.10	1.05
26	0.31	1.09	0.17	0.01	0.00	0.46	2.55	2.55	0.92	0.75	1.05	1.00
27	0.29	0.90	0.16	0.01	0.00	0.42	2.52	2.37	0.88	0.69	1.41	1.38
28	0.28	0.76	0.14	0.01	0.00	0.38	2.47	2.21	0.84	0.67	1.28	1.22
29	0.27	0.64	0.13	0.01	0.0	0.35	2.12	2.06	0.95	0.75	1.22	1.17
30	0.26	0.55	0.12	0.01	0.0	0.32	1.73	1.93	0.88	0.70	1.16	1.41
31	0.25	0.0	0.11	0.01	0.0	0.29	0.0	1.80	0.0	0.68	1.10	0.0
TOT	11.10	84.94	20.80	1.18	0.08	16.54	65.10	127.07	39.55	19.84	27.83	32.10

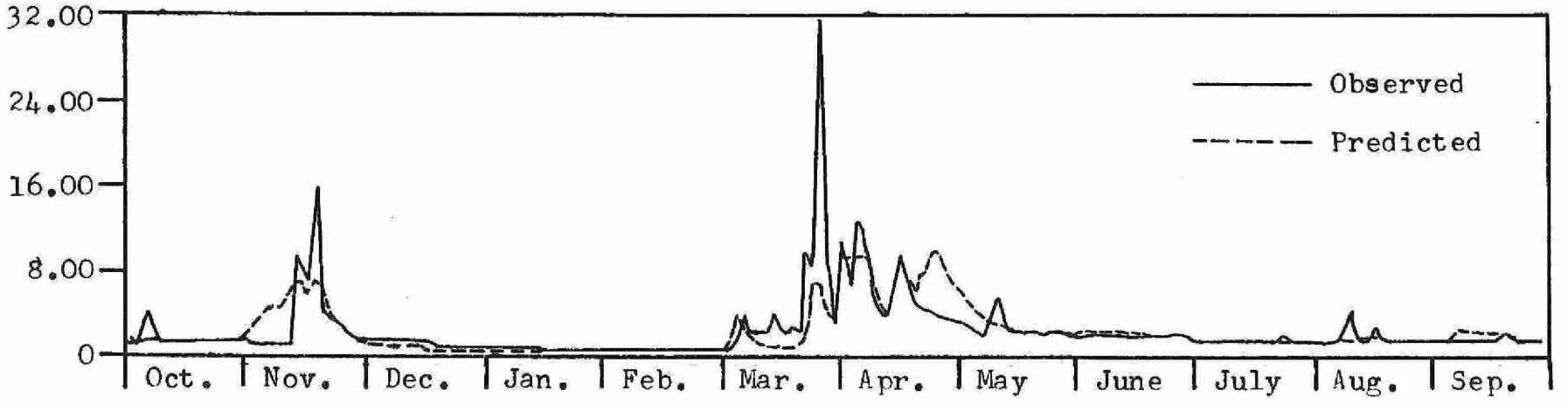
TOTAL FOR WATER YEAR = 446.14



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - HARP LAKE #3

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	1.28	1.00	0.73	0.04	0.00	0.00	9.76	5.43	2.08	0.77	1.09	0.61
2	1.22	1.80	0.63	0.04	0.00	0.00	9.96	5.02	1.96	0.75	1.04	0.60
3	2.68	2.56	0.56	0.04	0.00	0.50	10.13	5.12	1.84	0.72	0.99	0.59
4	2.13	3.25	0.50	0.03	0.00	3.44	8.55	4.63	1.73	0.70	0.94	0.57
5	2.04	3.85	0.45	0.03	0.00	4.25	7.03	4.28	1.63	0.68	0.90	0.56
6	1.92	4.33	0.41	0.03	0.00	3.21	5.95	3.97	1.54	0.66	0.86	0.56
7	1.82	4.68	0.37	0.03	0.00	2.34	5.15	3.68	1.46	0.64	0.94	0.54
8	1.72	4.90	0.34	0.02	0.00	1.77	4.53	3.41	1.38	0.63	0.88	0.53
9	1.63	4.99	0.31	0.02	0.00	1.38	4.03	3.17	1.31	0.61	1.07	0.51
10	1.54	4.96	0.29	0.02	0.00	1.12	3.62	2.94	1.60	0.59	0.98	0.52
11	1.47	4.81	0.26	0.02	0.00	0.94	3.28	3.87	1.44	0.58	0.94	0.51
12	1.53	4.56	0.24	0.02	0.00	0.80	3.02	3.94	1.37	0.57	0.90	0.50
13	1.42	5.74	0.22	0.02	0.00	0.70	5.86	3.51	1.30	0.55	0.87	1.61
14	1.36	6.85	0.20	0.01	0.00	0.62	9.20	3.30	1.23	0.55	0.84	1.29
15	1.29	6.14	0.19	0.01	0.00	0.56	9.16	3.07	1.17	0.54	0.80	1.23
16	1.24	5.42	0.17	0.01	0.00	0.50	8.92	2.86	1.12	0.53	0.77	1.16
17	1.18	6.47	0.16	0.01	0.00	0.46	7.81	2.66	1.07	0.52	0.75	1.11
18	1.13	7.81	0.14	0.01	0.00	0.43	7.04	2.48	1.02	0.51	0.72	1.06
19	1.13	6.63	0.13	0.01	0.00	0.49	6.26	2.32	0.98	0.50	0.69	1.01
20	1.08	5.56	0.12	0.01	0.00	0.63	5.70	2.17	0.94	0.49	0.67	0.97
21	1.03	4.62	0.11	0.01	0.00	1.57	7.78	2.03	0.91	0.48	0.65	0.93
22	0.99	3.81	0.10	0.01	0.00	2.13	8.27	1.90	0.87	0.47	0.63	0.89
23	0.96	3.12	0.09	0.01	0.00	2.94	8.15	1.78	0.84	0.46	0.65	0.85
24	0.92	2.55	0.09	0.01	0.00	7.22	11.61	1.67	0.81	0.46	0.86	0.82
25	1.25	2.09	0.08	0.01	0.00	6.82	11.09	1.58	0.78	1.97	0.78	0.79
26	1.12	1.71	0.07	0.01	0.00	5.15	10.78	2.74	0.79	1.49	0.75	0.76
27	1.28	1.41	0.07	0.00	0.00	4.03	9.57	2.25	0.75	1.42	0.72	0.73
28	1.18	1.17	0.06	0.00	0.00	3.27	8.39	2.11	0.73	1.34	0.70	0.71
29	1.13	0.99	0.06	0.00	0.0	4.50	7.26	2.66	0.71	1.27	0.68	0.68
30	1.09	0.84	0.05	0.00	0.0	8.55	6.47	2.38	0.83	1.20	0.65	0.66
31	1.04	0.0	0.05	0.00	0.0	10.38	0.0	2.22	0.0	1.14	0.63	0.0
TOT	42.80	118.63	7.26	0.50	0.04	80.71	224.34	95.13	36.18	23.77	25.33	23.86

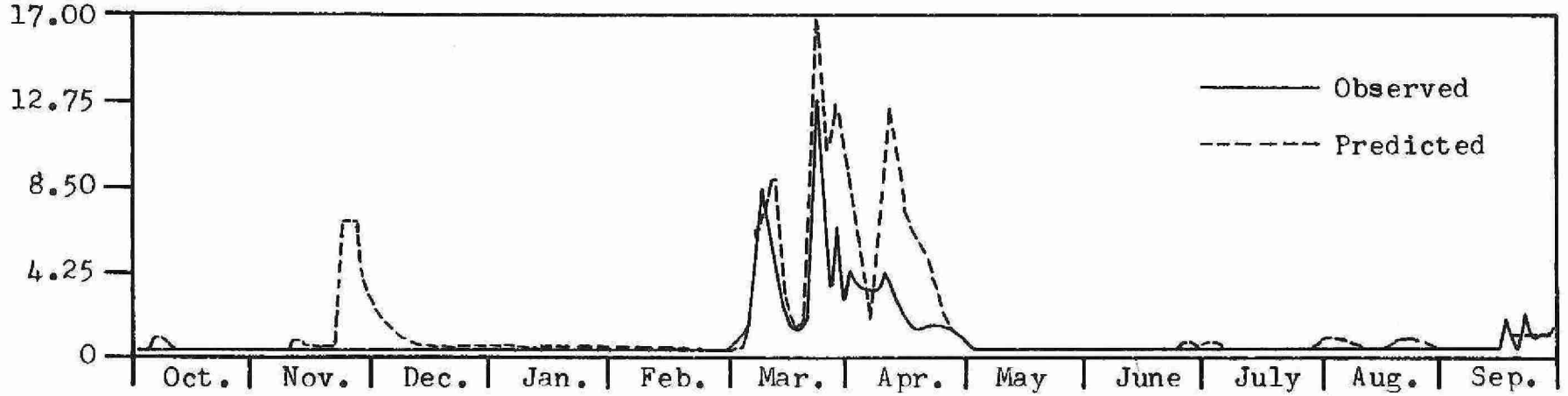
TOTAL FOR WATER YEAR = 678.55



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - HARP LAKE #3A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.24	0.20	3.03	0.57	0.38	0.26	10.99	0.59	0.23	0.45	0.92	0.46
2	0.22	0.22	2.52	0.56	0.37	0.26	12.77	0.51	0.22	0.39	0.76	0.41
3	0.21	0.24	2.13	0.55	0.37	0.25	10.36	0.44	0.22	0.35	0.63	0.37
4	0.20	0.25	1.83	0.54	0.36	0.25	8.05	0.39	0.22	0.31	0.75	0.34
5	0.19	0.28	1.59	0.54	0.36	0.25	6.92	0.36	0.21	0.72	0.68	0.31
6	1.04	0.43	1.40	0.53	0.35	0.24	5.49	0.33	0.21	0.67	0.57	0.29
7	0.94	0.44	1.25	0.52	0.35	0.24	4.29	0.30	0.21	0.57	0.49	0.28
8	0.77	0.43	1.14	0.52	0.34	0.24	3.36	0.28	0.21	0.49	0.50	0.27
9	0.64	0.43	1.05	0.51	0.34	0.23	2.64	0.27	0.20	0.42	0.45	0.26
10	0.53	0.43	0.97	0.50	0.33	0.58	2.15	0.26	0.20	0.37	0.40	0.40
11	0.45	0.44	0.91	0.50	0.33	1.81	3.10	0.25	0.20	0.33	0.36	0.38
12	0.39	0.44	0.87	0.49	0.33	6.17	9.42	0.24	0.20	0.30	0.32	0.34
13	0.34	0.45	0.83	0.48	0.32	6.28	12.23	0.23	0.20	0.28	0.30	0.37
14	0.31	0.47	0.80	0.48	0.32	6.74	10.23	0.23	0.20	0.26	0.28	0.35
15	0.29	0.48	0.77	0.47	0.31	9.45	8.21	0.22	0.20	0.25	0.27	0.32
16	0.26	0.97	0.75	0.46	0.31	9.72	6.74	0.22	0.22	0.24	0.30	0.35
17	0.24	0.95	0.73	0.46	0.30	7.76	5.86	0.22	0.22	0.23	0.28	0.33
18	0.23	0.93	0.71	0.45	0.30	6.06	5.10	0.22	0.25	0.22	0.27	0.30
19	0.22	0.87	0.69	0.45	0.30	4.74	5.01	0.22	0.24	0.22	0.76	0.29
20	0.21	0.82	0.68	0.44	0.29	3.71	4.89	0.21	0.23	0.21	0.69	1.54
21	0.33	0.78	0.67	0.43	0.29	2.92	4.56	0.21	0.22	0.21	1.10	1.40
22	0.46	0.76	0.66	0.43	0.28	2.31	3.69	0.21	0.22	0.21	0.96	1.14
23	0.41	0.74	0.65	0.42	0.28	1.83	2.93	0.21	0.21	0.20	0.80	0.94
24	0.36	0.73	0.64	0.42	0.28	1.47	2.34	0.21	0.21	0.24	0.67	0.78
25	0.32	0.72	0.63	0.41	0.27	1.18	1.88	0.21	0.20	0.24	0.57	0.66
26	0.29	6.94	0.62	0.41	0.27	0.96	1.51	0.21	0.20	0.23	0.49	0.94
27	0.26	6.77	0.61	0.40	0.27	1.52	1.22	0.21	0.20	0.22	0.43	0.99
28	0.24	5.51	0.60	0.40	0.26	6.70	0.99	0.21	0.65	0.22	0.39	0.85
29	0.23	4.46	0.59	0.39	0.0	10.80	0.81	0.21	0.60	0.21	0.64	0.97
30	0.22	3.65	0.58	0.39	0.0	17.15	0.66	0.21	0.52	0.21	0.58	0.84
31	0.21	0.0	0.58	0.38	0.0	14.14	0.0	0.21	0.0	1.01	0.53	0.0
TOT	11.27	41.22	31.44	14.51	8.86	128.22	158.42	8.29	7.50	10.48	17.12	17.44

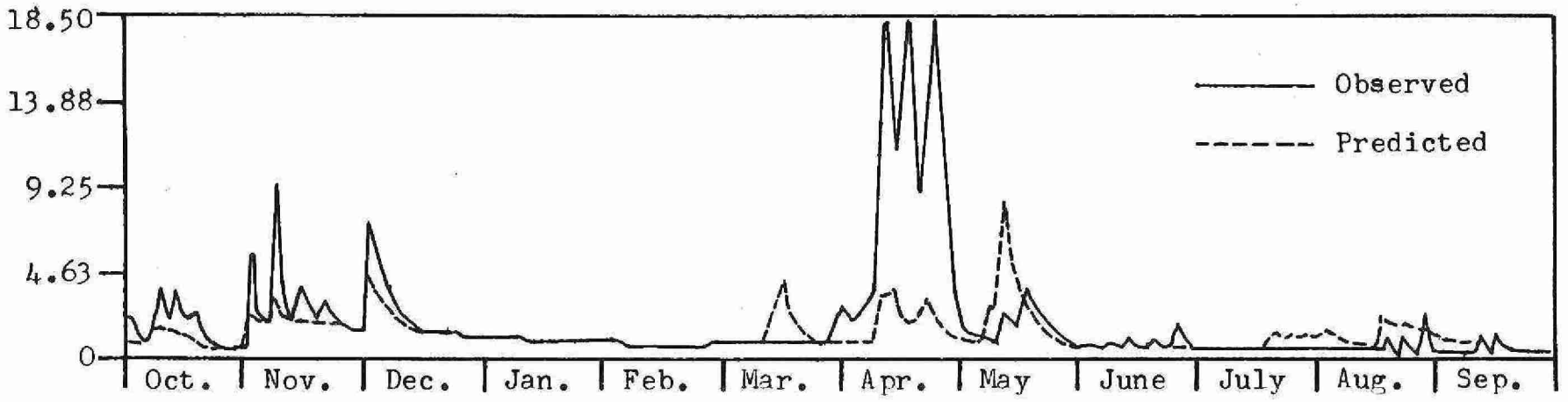
TOTAL FOR WATER YEAR = 454.78



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - HARP LAKE #3A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	1.12	0.30	4.86	0.96	0.64	0.44	0.34	0.59	0.35	0.44	0.67	0.81
2	0.97	0.33	4.41	0.95	0.63	0.43	0.32	0.51	0.34	0.41	1.47	0.72
3	0.81	2.68	3.71	0.93	0.62	0.43	0.30	0.44	0.34	0.39	1.32	0.65
4	0.69	2.47	3.17	0.92	0.61	0.42	0.28	0.42	0.45	0.37	1.10	0.59
5	0.61	2.05	2.75	0.91	0.60	0.42	0.28	0.60	0.43	0.36	0.93	0.55
6	0.53	1.74	2.42	0.90	0.60	0.41	0.26	2.74	0.40	0.35	0.80	0.53
7	0.47	1.58	2.16	0.88	0.59	0.41	0.56	2.74	0.60	0.34	0.69	0.51
8	1.54	1.39	1.95	0.87	0.58	0.40	0.53	6.69	0.56	0.33	0.61	0.48
9	1.40	1.26	1.79	0.86	0.57	0.39	0.46	8.74	0.51	0.33	0.55	0.49
10	1.15	2.92	1.66	0.85	0.56	0.39	0.40	7.17	0.46	0.33	0.50	0.59
11	1.21	2.91	1.56	0.84	0.56	0.38	2.84	5.63	0.43	0.32	0.47	0.63
12	1.18	2.50	1.48	0.83	0.55	0.38	2.98	4.56	1.03	0.32	0.44	0.58
13	1.00	2.16	1.41	0.82	0.54	0.37	3.20	3.65	0.94	0.42	0.42	0.54
14	0.84	1.91	1.35	0.81	0.54	4.31	2.66	2.91	0.80	0.41	0.40	1.52
15	0.95	1.77	1.30	0.80	0.53	3.81	2.12	2.32	0.69	0.38	0.38	1.39
16	0.83	2.17	1.26	0.79	0.52	3.02	1.70	1.87	0.61	0.37	2.27	1.17
17	0.71	2.02	1.23	0.78	0.51	2.42	1.38	1.52	0.55	0.35	2.06	1.00
18	0.62	1.87	1.20	0.76	0.51	1.95	1.68	1.25	0.52	0.34	1.75	0.89
19	0.55	1.73	1.17	0.75	0.50	1.58	2.71	1.05	0.48	0.35	1.88	0.78
20	0.49	1.62	1.15	0.74	0.49	1.30	2.82	0.88	0.44	0.34	1.59	0.92
21	0.45	1.61	1.13	0.74	0.49	1.08	2.31	0.76	0.41	0.34	1.31	0.91
22	0.41	1.56	1.11	0.73	0.48	0.91	1.84	0.66	0.39	1.15	1.10	0.81
23	0.38	1.51	1.09	0.72	0.48	0.77	1.51	0.59	0.38	1.05	1.97	0.72
24	0.36	1.48	1.07	0.71	0.47	0.67	1.30	0.53	0.36	0.89	1.73	0.65
25	0.35	1.46	1.06	0.70	0.46	0.59	1.21	0.48	0.35	0.76	1.43	0.60
26	0.33	1.45	1.04	0.69	0.46	0.52	1.15	0.45	0.39	1.17	1.19	0.55
27	0.32	1.45	1.03	0.68	0.45	0.47	1.13	0.42	0.38	1.03	1.71	0.85
28	0.32	1.45	1.01	0.67	0.44	0.43	1.10	0.40	0.37	0.87	1.54	0.79
29	0.31	1.45	1.00	0.66	0.0	0.40	0.91	0.38	0.49	1.03	1.28	0.71
30	0.31	1.46	0.99	0.65	0.0	0.38	0.73	0.37	0.47	0.90	1.09	0.86
31	0.30	0.0	0.97	0.64	0.0	0.36	0.0	0.36	0.0	0.77	0.93	0.0
TOT	21.50	52.28	53.51	24.52	14.97	30.25	40.98	61.65	14.95	17.21	35.58	22.81

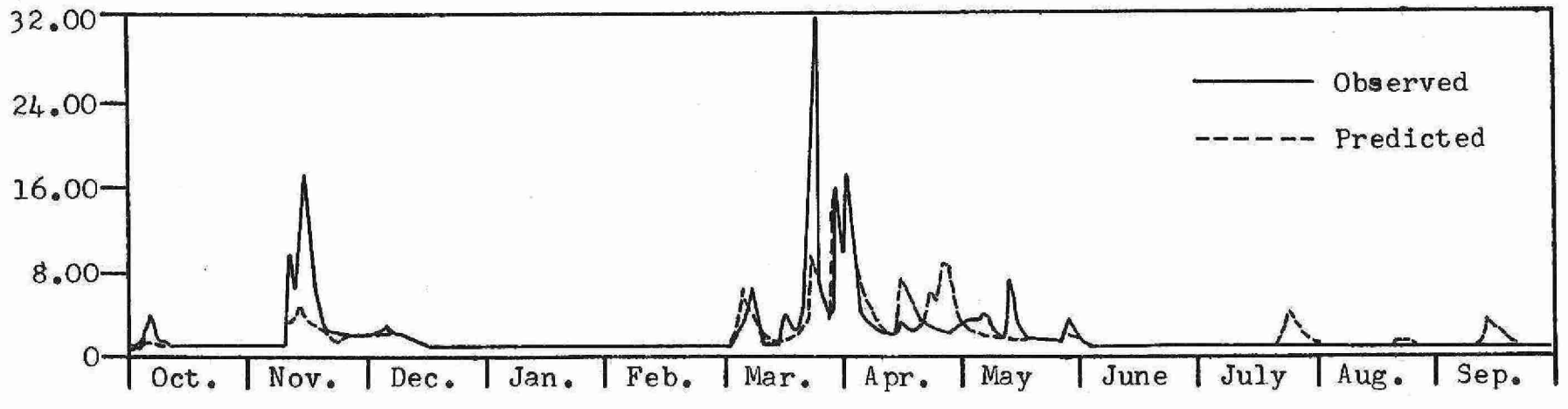
TOTAL FOR WATER YEAR = 390.22



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - HARP LAKE #3A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.78	0.49	1.95	1.22	0.81	0.56	12.28	2.34	0.80	0.55	1.34	0.52
2	0.70	0.52	1.90	1.20	0.80	0.55	14.75	1.88	0.70	0.50	1.13	0.51
3	1.83	0.56	1.85	1.19	0.79	2.30	12.39	1.78	0.62	0.47	0.96	0.49
4	1.65	0.60	1.82	1.17	0.78	5.74	9.72	1.48	0.56	0.44	0.83	0.47
5	1.39	0.64	1.78	1.16	0.77	5.27	7.59	1.22	0.52	0.42	0.73	0.45
6	1.18	0.68	1.75	1.14	0.76	4.23	5.95	1.02	0.48	0.40	0.65	0.48
7	1.01	0.73	1.72	1.13	0.75	3.39	4.67	0.86	0.45	0.38	1.03	0.47
8	0.88	0.77	1.69	1.11	0.74	2.73	3.68	0.74	0.43	0.37	0.94	0.45
9	0.78	0.81	1.67	1.10	0.73	2.23	2.91	0.65	0.41	0.36	1.54	0.44
10	0.70	0.85	1.64	1.08	0.72	1.83	2.32	0.58	0.66	0.36	1.37	0.49
11	0.64	0.90	1.62	1.07	0.71	1.53	1.85	1.26	0.62	0.35	1.15	0.47
12	0.66	0.94	1.59	1.05	0.70	1.29	1.63	1.46	0.56	0.35	0.98	0.45
13	0.61	3.06	1.57	1.04	0.69	1.10	7.59	1.24	0.51	0.34	0.89	3.53
14	0.57	2.92	1.55	1.03	0.68	0.96	7.35	1.05	0.48	0.37	0.78	3.17
15	0.54	2.55	1.53	1.01	0.67	0.84	6.91	0.90	0.45	0.37	0.69	2.56
16	0.51	2.28	1.51	1.00	0.66	0.75	5.70	0.77	0.43	0.36	0.63	2.08
17	0.49	4.91	1.49	0.99	0.65	0.68	4.73	0.67	0.41	0.35	0.57	1.70
18	0.48	4.52	1.47	0.97	0.65	0.88	3.92	0.60	0.39	0.35	0.53	1.42
19	0.49	3.85	1.45	0.96	0.64	0.81	3.18	0.54	0.38	0.34	0.50	1.19
20	0.47	3.35	1.43	0.95	0.63	1.79	2.84	0.50	0.38	0.34	0.48	1.04
21	0.46	2.96	1.41	0.94	0.62	2.54	5.57	0.46	0.38	0.34	0.46	0.91
22	0.45	2.67	1.39	0.92	0.61	3.22	5.32	0.43	0.37	0.33	0.44	0.80
23	0.44	2.46	1.37	0.91	0.61	4.45	4.68	0.41	0.37	0.33	0.56	0.72
24	0.44	2.30	1.36	0.90	0.60	11.09	8.66	0.40	0.36	0.33	1.25	0.65
25	0.63	2.18	1.34	0.89	0.59	9.40	8.28	0.38	0.36	5.21	1.14	0.60
26	0.61	2.10	1.32	0.88	0.58	7.37	7.17	1.27	0.40	4.66	0.98	0.56
27	0.66	2.04	1.30	0.86	0.57	5.79	5.69	1.17	0.39	3.73	0.85	0.53
28	0.62	2.00	1.29	0.85	0.57	4.57	4.52	0.98	0.38	2.98	0.75	0.51
29	0.58	1.97	1.27	0.84	0.0	7.93	3.56	1.23	0.37	2.40	0.67	0.49
30	0.54	1.95	1.25	0.83	0.0	12.81	2.95	1.10	0.58	1.94	0.61	0.47
31	0.51	0.0	1.24	0.82	0.0	15.17	0.0	0.93	0.0	1.59	0.56	0.0
TOT	22.29	58.57	47.51	31.21	19.06	123.84	178.38	30.34	14.18	31.62	25.96	28.61

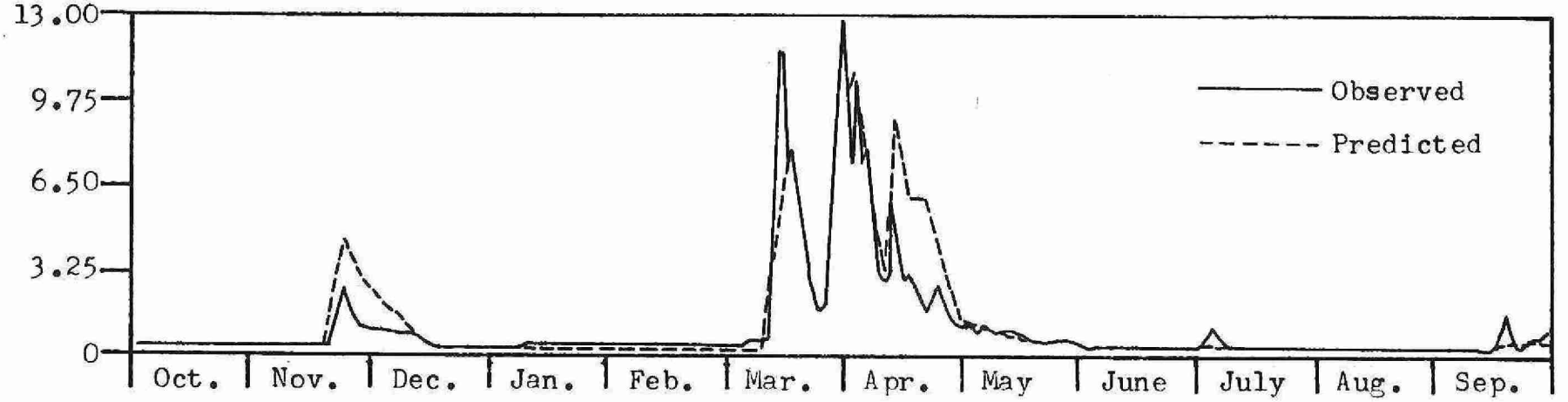
TOTAL FOR WATER YEAR = 611.57



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - HARP LAKE #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.23	0.11	2.75	0.30	0.23	0.19	10.08	1.41	0.16	0.23	0.30	0.23
2	0.20	0.11	2.40	0.29	0.23	0.19	10.83	1.24	0.16	0.22	0.28	0.22
3	0.18	0.11	2.10	0.29	0.22	0.19	10.03	1.08	0.16	0.21	0.26	0.21
4	0.16	0.11	1.84	0.28	0.22	0.19	8.60	0.95	0.16	0.20	0.28	0.20
5	0.15	0.12	1.62	0.28	0.22	0.18	7.64	0.84	0.15	0.28	0.28	0.19
6	0.45	0.19	1.43	0.28	0.22	0.18	6.66	0.74	0.15	0.30	0.26	0.18
7	0.50	0.21	1.27	0.27	0.22	0.18	5.71	0.65	0.15	0.28	0.24	0.17
8	0.44	0.20	1.13	0.27	0.22	0.18	4.90	0.58	0.15	0.26	0.24	0.17
9	0.38	0.19	1.01	0.27	0.22	0.18	4.21	0.52	0.15	0.24	0.23	0.16
10	0.34	0.19	0.91	0.27	0.21	0.39	3.64	0.46	0.15	0.23	0.22	0.19
11	0.30	0.19	0.82	0.26	0.21	1.14	3.74	0.42	0.14	0.21	0.21	0.19
12	0.26	0.19	0.75	0.26	0.21	3.68	6.80	0.38	0.14	0.20	0.20	0.18
13	0.23	0.19	0.68	0.26	0.21	4.56	9.20	0.34	0.14	0.19	0.19	0.18
14	0.21	0.19	0.63	0.26	0.21	5.05	8.79	0.31	0.14	0.18	0.18	0.18
15	0.19	0.19	0.58	0.26	0.21	6.80	7.70	0.29	0.14	0.18	0.17	0.18
16	0.17	0.44	0.54	0.25	0.21	7.63	6.85	0.27	0.15	0.17	0.18	0.18
17	0.16	0.51	0.50	0.25	0.20	6.91	6.31	0.25	0.15	0.17	0.17	0.18
18	0.14	0.50	0.47	0.25	0.20	5.93	5.87	0.23	0.16	0.16	0.17	0.17
19	0.13	0.48	0.45	0.25	0.20	5.09	5.87	0.22	0.16	0.16	0.25	0.17
20	0.12	0.45	0.42	0.25	0.20	4.37	5.97	0.21	0.16	0.16	0.26	0.41
21	0.17	0.42	0.40	0.24	0.20	3.76	5.92	0.20	0.15	0.15	0.34	0.46
22	0.24	0.40	0.39	0.24	0.20	3.24	5.28	0.19	0.15	0.15	0.34	0.42
23	0.24	0.38	0.37	0.24	0.20	2.79	4.54	0.18	0.15	0.15	0.31	0.38
24	0.21	0.36	0.36	0.24	0.20	2.41	3.91	0.18	0.15	0.15	0.29	0.34
25	0.19	0.35	0.35	0.24	0.19	2.08	3.36	0.17	0.15	0.15	0.27	0.31
26	0.17	3.69	0.34	0.24	0.19	1.80	2.89	0.17	0.14	0.15	0.25	0.38
27	0.16	4.68	0.33	0.23	0.19	1.98	2.49	0.16	0.14	0.15	0.23	0.42
28	0.14	4.18	0.32	0.23	0.19	5.78	2.14	0.16	0.24	0.15	0.22	0.40
29	0.13	3.63	0.31	0.23	0.0	8.06	1.84	0.16	0.26	0.14	0.26	0.43
30	0.12	3.15	0.31	0.23	0.0	11.97	1.58	0.16	0.24	0.14	0.26	0.42
31	0.11	0.0	0.30	0.23	0.0	11.76	0.0	0.15	0.0	0.28	0.24	0.0
TOT	6.84	26.08	26.05	7.95	5.83	108.85	173.38	13.29	4.78	5.98	7.56	7.89

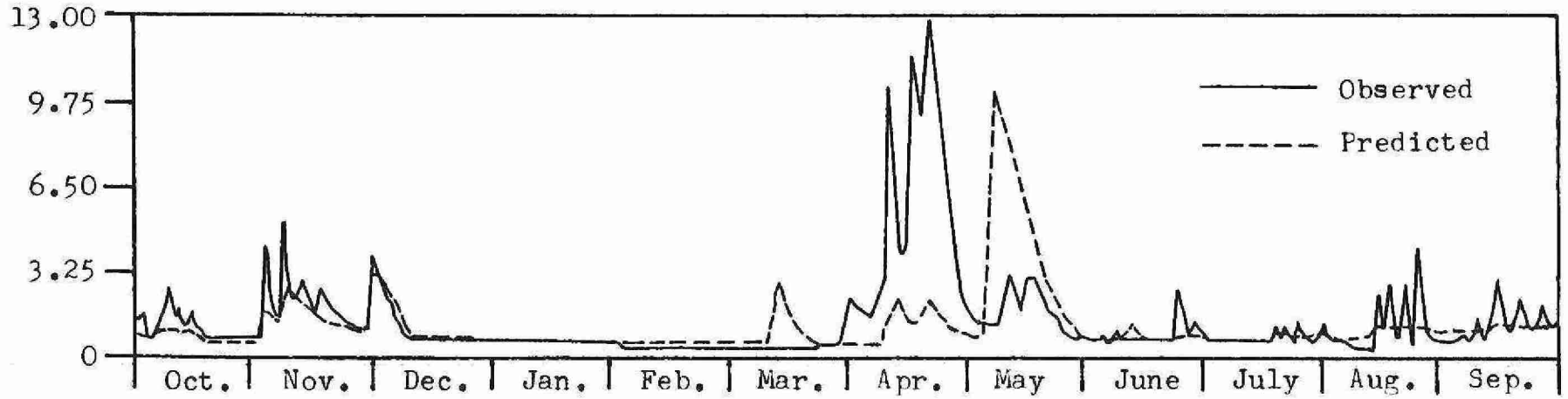
TOTAL FOR WATER YEAR = 394.47



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - HARP LAKE #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.52	0.20	2.82	0.70	0.56	0.46	0.56	0.83	0.51	0.42	0.57	0.78
2	0.51	0.21	3.14	0.69	0.55	0.46	0.52	0.74	0.47	0.39	0.92	0.71
3	0.46	1.43	2.80	0.69	0.55	0.46	0.49	0.67	0.43	0.37	0.96	0.64
4	0.41	1.71	2.51	0.68	0.54	0.45	0.46	0.62	0.53	0.35	0.86	0.59
5	0.38	1.52	2.26	0.67	0.54	0.45	0.43	0.75	0.53	0.33	0.77	0.54
6	0.34	1.35	2.04	0.67	0.54	0.45	0.41	2.50	0.49	0.31	0.69	0.51
7	0.32	1.26	1.86	0.66	0.53	0.45	0.50	3.11	0.69	0.30	0.62	0.48
8	0.69	1.16	1.70	0.66	0.53	0.44	0.52	6.45	0.70	0.29	0.57	0.45
9	0.76	1.06	1.56	0.65	0.53	0.44	0.47	9.58	0.63	0.28	0.52	0.43
10	0.67	2.11	1.44	0.65	0.52	0.44	0.44	9.18	0.57	0.27	0.48	0.47
11	0.70	2.47	1.34	0.64	0.52	0.43	1.43	7.89	0.52	0.26	0.44	0.49
12	0.73	2.25	1.26	0.64	0.52	0.43	1.80	6.96	1.09	0.26	0.41	0.47
13	0.67	2.01	1.18	0.63	0.51	0.43	1.96	6.08	1.18	0.31	0.39	0.44
14	0.60	1.81	1.12	0.63	0.51	2.63	1.84	5.25	1.04	0.31	0.37	0.97
15	0.65	1.67	1.06	0.62	0.51	3.05	1.60	4.52	0.92	0.30	0.35	1.07
16	0.62	1.97	1.01	0.62	0.50	2.67	1.40	3.89	0.82	0.29	1.01	0.96
17	0.55	1.94	0.97	0.61	0.50	2.34	1.23	3.36	0.74	0.28	1.14	0.86
18	0.49	1.79	0.93	0.61	0.50	2.06	1.33	2.90	0.67	0.27	1.05	0.78
19	0.45	1.64	0.90	0.61	0.49	1.81	1.89	2.51	0.61	0.27	1.12	0.71
20	0.40	1.51	0.87	0.60	0.49	1.61	2.14	2.18	0.55	0.27	1.05	0.78
21	0.37	1.46	0.85	0.60	0.49	1.43	1.96	1.89	0.51	0.26	0.94	0.81
22	0.34	1.38	0.83	0.59	0.48	1.28	1.70	1.65	0.47	0.60	0.84	0.76
23	0.31	1.30	0.81	0.59	0.48	1.15	1.49	1.44	0.43	0.67	1.22	0.69
24	0.29	1.23	0.79	0.59	0.48	1.04	1.34	1.26	0.40	0.61	1.25	0.63
25	0.27	1.17	0.77	0.58	0.48	0.94	1.27	1.11	0.37	0.55	1.11	0.58
26	0.26	1.12	0.76	0.58	0.47	0.86	1.23	0.98	0.39	0.73	0.98	0.53
27	0.24	1.09	0.75	0.57	0.47	0.79	1.23	0.87	0.38	0.73	1.22	0.74
28	0.23	1.06	0.74	0.57	0.47	0.73	1.23	0.77	0.35	0.66	1.23	0.76
29	0.22	1.03	0.73	0.57	0.0	0.68	1.11	0.69	0.45	0.73	1.09	0.69
30	0.21	1.02	0.72	0.56	0.0	0.63	0.96	0.62	0.46	0.70	0.97	0.77
31	0.20	0.0	0.71	0.56	0.0	0.59	0.0	0.56	0.0	0.63	0.87	0.0
TOT	13.86	42.92	41.21	19.28	14.26	32.08	34.95	91.82	17.91	13.01	26.00	20.10

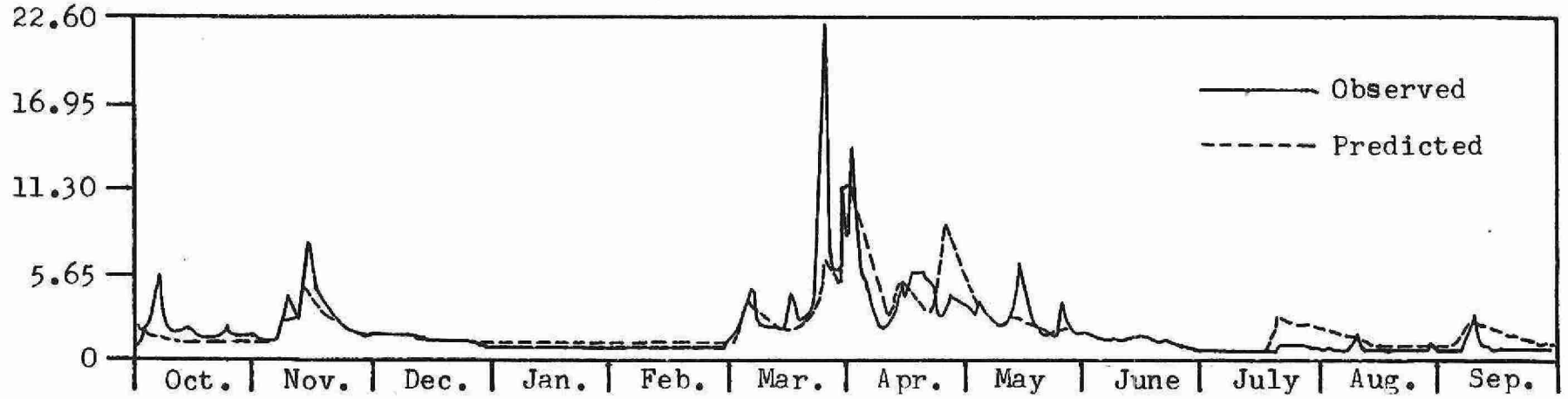
TOTAL FOR WATER YEAR = 367.40



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - HARP LAKE #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.75	0.49	1.72	1.02	0.83	0.69	11.19	4.26	1.42	0.59	1.47	0.59
2	0.68	0.49	1.65	1.02	0.83	0.69	12.30	3.68	1.26	0.55	1.31	0.56
3	1.56	0.50	1.58	1.01	0.82	1.65	11.65	3.49	1.12	0.51	1.17	0.54
4	1.70	0.51	1.52	1.00	0.82	3.79	10.09	3.13	1.00	0.48	1.04	0.51
5	1.52	0.53	1.47	1.00	0.81	4.21	8.68	2.71	0.90	0.46	0.94	0.48
6	1.34	0.54	1.42	0.99	0.81	3.77	7.48	2.36	0.81	0.43	0.85	0.49
7	1.19	0.56	1.39	0.98	0.80	3.31	6.45	2.06	0.74	0.41	1.04	0.48
8	1.06	0.58	1.35	0.98	0.80	2.92	5.57	1.80	0.67	0.40	1.03	0.46
9	0.95	0.61	1.32	0.97	0.79	2.59	4.81	1.57	0.62	0.38	1.40	0.44
10	0.86	0.63	1.29	0.96	0.79	2.31	4.16	1.38	0.89	0.37	1.42	0.46
11	0.78	0.65	1.27	0.96	0.78	2.06	3.60	2.05	0.91	0.36	1.26	0.46
12	0.77	0.68	1.25	0.95	0.78	1.85	3.17	2.51	0.82	0.35	1.13	0.44
13	0.73	2.39	1.23	0.94	0.77	1.67	5.45	2.33	0.75	0.34	1.04	2.35
14	0.66	2.78	1.21	0.94	0.77	1.52	5.99	2.06	0.68	0.36	0.95	2.74
15	0.61	2.51	1.19	0.93	0.76	1.39	5.76	1.81	0.63	0.36	0.86	2.39
16	0.56	2.29	1.18	0.93	0.76	1.28	5.22	1.59	0.58	0.35	0.78	2.10
17	0.52	4.26	1.16	0.92	0.75	1.18	4.65	1.40	0.54	0.34	0.72	1.84
18	0.49	4.55	1.15	0.91	0.75	1.25	4.14	1.24	0.51	0.33	0.66	1.63
19	0.48	4.05	1.14	0.91	0.74	1.21	3.65	1.10	0.48	0.33	0.61	1.44
20	0.46	3.63	1.13	0.90	0.74	1.71	3.34	0.98	0.45	0.32	0.57	1.30
21	0.44	3.27	1.12	0.90	0.73	2.28	4.90	0.88	0.44	0.32	0.54	1.17
22	0.42	2.97	1.11	0.89	0.73	2.80	5.30	0.79	0.42	0.31	0.51	1.06
23	0.40	2.71	1.10	0.88	0.72	3.63	5.04	0.72	0.40	0.31	0.56	0.96
24	0.38	2.50	1.09	0.88	0.72	7.42	7.80	0.65	0.39	0.31	1.02	0.87
25	0.57	2.32	1.08	0.87	0.71	7.75	8.70	0.60	0.38	2.67	1.09	0.79
26	0.60	2.16	1.07	0.87	0.71	6.71	8.35	1.55	0.41	3.17	0.98	0.73
27	0.67	2.04	1.06	0.86	0.70	5.82	7.38	1.72	0.40	2.79	0.89	0.68
28	0.65	1.94	1.05	0.86	0.70	5.06	6.39	1.51	0.39	2.44	0.81	0.63
29	0.60	1.85	1.05	0.85	0.0	6.69	5.51	1.84	0.38	2.13	0.74	0.59
30	0.56	1.78	1.04	0.84	0.0	9.85	4.89	1.82	0.56	1.87	0.68	0.55
31	0.52	0.0	1.03	0.84	0.0	12.04	0.0	1.61	0.0	1.65	0.63	0.0
TOT	23.49	56.76	38.39	28.74	21.40	111.11	191.65	57.18	19.96	25.99	28.69	29.71

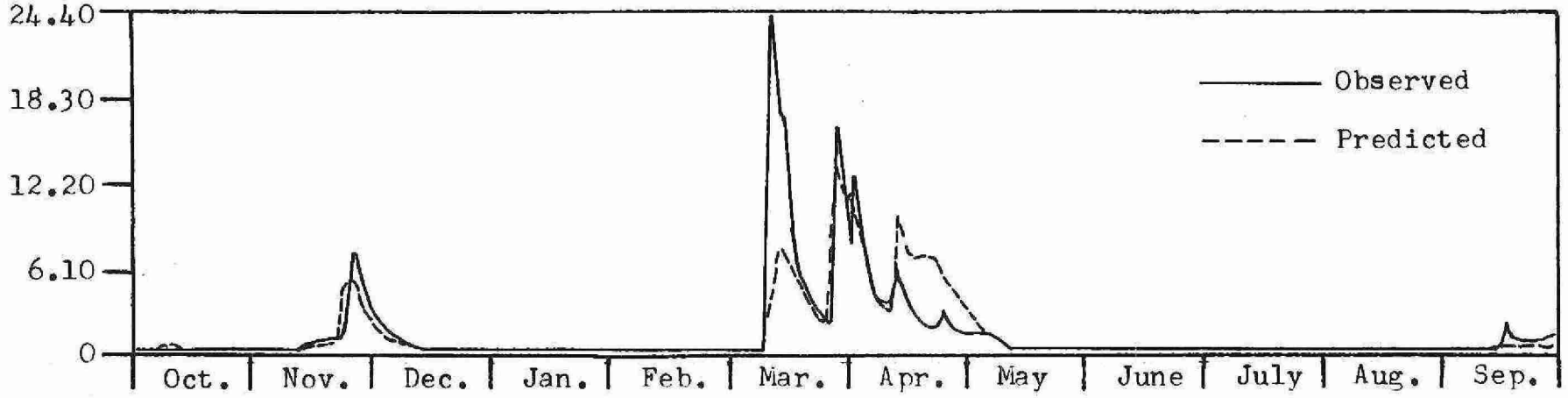
TOTAL FOR WATER YEAR = 633.06



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - HARP LAKE #5

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.09	0.09	2.85	0.28	0.16	0.10	10.59	1.38	0.28	0.32	0.29	0.25
2	0.08	0.09	2.42	0.27	0.16	0.10	11.47	1.22	0.28	0.30	0.28	0.24
3	0.08	0.10	2.06	0.27	0.16	0.10	10.22	1.05	0.28	0.29	0.27	0.23
4	0.07	0.10	1.76	0.26	0.16	0.10	8.41	0.92	0.27	0.28	0.28	0.23
5	0.07	0.11	1.51	0.26	0.15	0.10	7.23	0.81	0.27	0.37	0.28	0.22
6	0.30	0.19	1.31	0.25	0.15	0.10	6.08	0.72	0.27	0.38	0.27	0.22
7	0.33	0.20	1.15	0.25	0.15	0.09	5.02	0.64	0.27	0.36	0.26	0.22
8	0.28	0.19	1.01	0.24	0.15	0.09	4.14	0.58	0.26	0.34	0.26	0.21
9	0.24	0.19	0.89	0.24	0.14	0.09	3.42	0.53	0.26	0.32	0.25	0.21
10	0.21	0.19	0.80	0.24	0.14	0.33	2.86	0.48	0.26	0.31	0.25	0.23
11	0.19	0.18	0.72	0.23	0.14	1.24	3.09	0.45	0.26	0.29	0.24	0.23
12	0.16	0.18	0.65	0.23	0.14	4.42	7.16	0.42	0.26	0.28	0.24	0.22
13	0.15	0.18	0.60	0.22	0.13	5.19	10.25	0.39	0.26	0.27	0.23	0.23
14	0.13	0.19	0.55	0.22	0.13	5.65	9.59	0.37	0.25	0.27	0.23	0.22
15	0.12	0.19	0.51	0.22	0.13	7.74	8.22	0.35	0.25	0.26	0.23	0.22
16	0.11	0.48	0.48	0.21	0.13	8.46	7.22	0.34	0.26	0.25	0.23	0.22
17	0.11	0.54	0.45	0.21	0.13	7.33	6.74	0.33	0.26	0.25	0.23	0.22
18	0.10	0.54	0.43	0.21	0.12	6.04	6.39	0.32	0.27	0.25	0.22	0.21
19	0.09	0.50	0.41	0.20	0.12	4.97	6.74	0.31	0.27	0.24	0.27	0.21
20	0.09	0.46	0.39	0.20	0.12	4.10	7.20	0.30	0.27	0.24	0.27	0.40
21	0.13	0.43	0.37	0.20	0.12	3.39	7.37	0.30	0.26	0.24	0.32	0.42
22	0.21	0.40	0.36	0.19	0.12	2.80	6.44	0.29	0.26	0.24	0.32	0.38
23	0.20	0.38	0.35	0.19	0.11	2.31	5.36	0.29	0.25	0.23	0.30	0.35
24	0.18	0.36	0.34	0.19	0.11	1.92	4.47	0.28	0.25	0.24	0.28	0.32
25	0.16	0.35	0.33	0.18	0.11	1.59	3.73	0.28	0.25	0.24	0.27	0.30
26	0.14	4.64	0.32	0.18	0.11	1.32	3.11	0.28	0.25	0.23	0.26	0.37
27	0.13	5.53	0.31	0.18	0.11	1.60	2.61	0.28	0.25	0.23	0.25	0.41
28	0.12	4.77	0.30	0.18	0.11	6.54	2.18	0.27	0.34	0.23	0.24	0.39
29	0.11	4.00	0.30	0.17	0.0	9.00	1.83	0.27	0.35	0.23	0.26	0.45
30	0.10	3.37	0.29	0.17	0.0	13.77	1.53	0.27	0.33	0.23	0.26	0.44
31	0.09	0.0	0.28	0.17	0.0	12.87	0.0	0.27	0.0	0.28	0.26	0.0
TOT	4.59	29.12	24.48	6.71	3.71	113.47	180.66	15.00	8.08	8.50	8.07	8.46

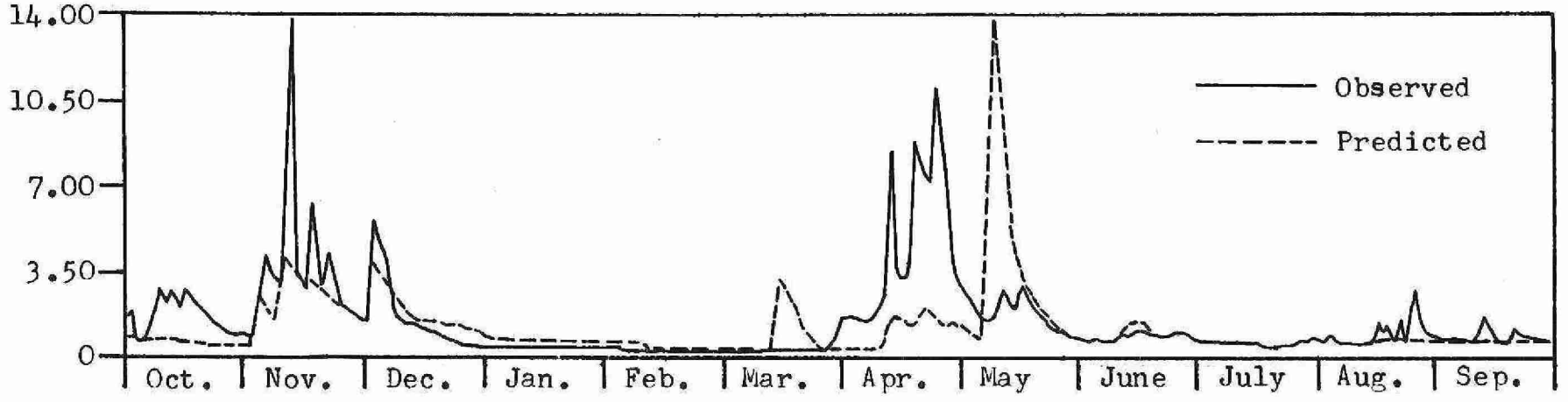
TOTAL FOR WATER YEAR = 410.85



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - HARP LAKE #5

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.58	0.26	3.82	0.80	0.48	0.30	0.29	0.86	0.48	0.48	0.44	0.53
2	0.57	0.28	3.98	0.79	0.47	0.30	0.27	0.76	0.44	0.45	0.63	0.49
3	0.51	2.34	3.48	0.77	0.46	0.29	0.24	0.67	0.42	0.42	0.63	0.46
4	0.45	2.62	3.07	0.76	0.45	0.29	0.22	0.63	0.60	0.40	0.58	0.44
5	0.41	2.26	2.72	0.75	0.45	0.28	0.21	0.93	0.61	0.39	0.53	0.41
6	0.38	1.96	2.44	0.73	0.44	0.28	0.19	3.87	0.55	0.37	0.49	0.40
7	0.35	1.81	2.20	0.72	0.43	0.27	0.29	4.70	0.86	0.36	0.45	0.39
8	0.88	1.64	2.00	0.71	0.43	0.27	0.30	9.69	0.87	0.35	0.43	0.37
9	0.93	1.48	1.83	0.70	0.42	0.26	0.27	13.85	0.77	0.34	0.40	0.37
10	0.81	3.34	1.69	0.69	0.41	0.26	0.24	12.61	0.69	0.34	0.39	0.40
11	0.88	3.85	1.58	0.67	0.41	0.26	1.18	10.42	0.62	0.33	0.37	0.42
12	0.94	3.44	1.48	0.66	0.40	0.25	1.51	9.00	1.40	0.33	0.36	0.41
13	0.85	2.99	1.39	0.65	0.39	0.25	1.70	7.65	1.46	0.35	0.35	0.39
14	0.75	2.63	1.32	0.64	0.39	3.10	1.57	6.37	1.26	0.36	0.34	0.80
15	0.86	2.42	1.26	0.63	0.38	3.35	1.32	5.28	1.09	0.35	0.33	0.84
16	0.81	3.01	1.20	0.62	0.37	2.79	1.12	4.39	0.95	0.34	0.61	0.75
17	0.71	2.94	1.15	0.61	0.37	2.33	0.96	3.66	0.84	0.33	0.65	0.67
18	0.63	2.67	1.11	0.60	0.36	1.95	1.10	3.06	0.76	0.32	0.60	0.62
19	0.56	2.42	1.08	0.59	0.36	1.64	1.84	2.57	0.68	0.32	0.65	0.57
20	0.50	2.21	1.04	0.58	0.35	1.38	2.19	2.17	0.62	0.32	0.62	0.64
21	0.46	2.14	1.01	0.57	0.34	1.17	1.97	1.83	0.57	0.32	0.56	0.67
22	0.42	2.02	0.99	0.56	0.34	1.00	1.65	1.56	0.52	0.49	0.52	0.63
23	0.39	1.89	0.96	0.55	0.33	0.86	1.41	1.33	0.48	0.51	0.75	0.57
24	0.36	1.78	0.94	0.54	0.33	0.74	1.26	1.15	0.45	0.47	0.76	0.53
25	0.34	1.70	0.92	0.54	0.32	0.64	1.23	1.00	0.43	0.44	0.68	0.49
26	0.32	1.63	0.90	0.53	0.32	0.56	1.24	0.87	0.44	0.53	0.61	0.46
27	0.31	1.58	0.88	0.52	0.31	0.49	1.31	0.77	0.43	0.53	0.78	0.67
28	0.29	1.54	0.86	0.51	0.31	0.44	1.38	0.68	0.41	0.49	0.78	0.68
29	0.28	1.51	0.85	0.50	0.0	0.39	1.23	0.62	0.51	0.52	0.70	0.61
30	0.28	1.48	0.83	0.49	0.0	0.35	1.03	0.56	0.51	0.50	0.63	0.70
31	0.27	0.0	0.82	0.49	0.0	0.32	0.0	0.51	0.0	0.47	0.58	0.0
TOT	17.09	63.85	49.80	19.48	10.81	27.06	30.68	114.04	20.73	12.51	17.19	16.37

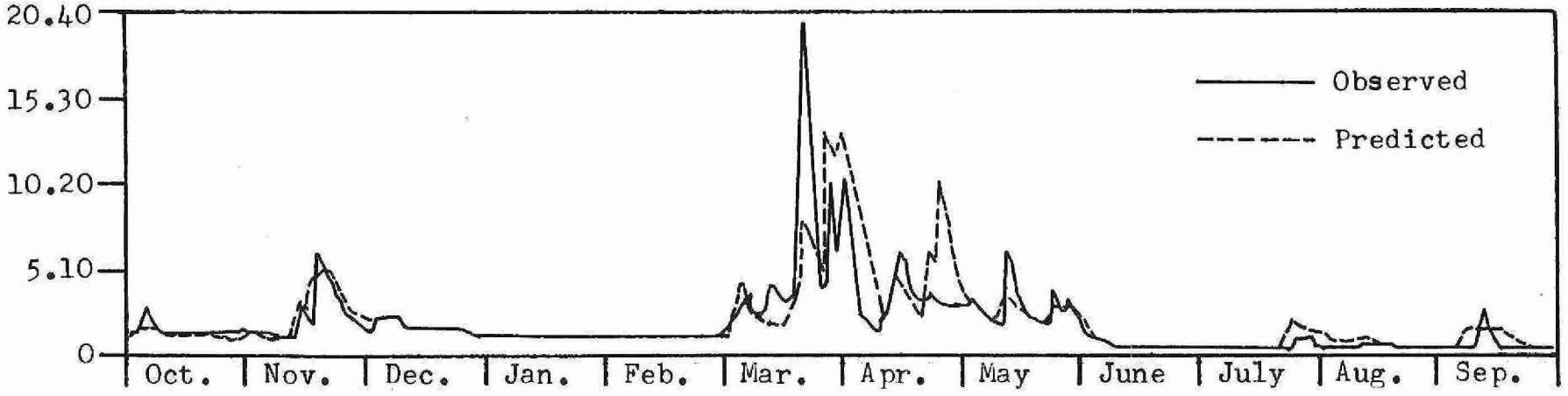
TOTAL FOR WATER YEAR = 399.61



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - HARP LAKE #5

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.68	0.50	1.73	0.86	0.51	0.33	11.50	4.55	1.73	0.61	0.91	0.46
2	0.61	0.52	1.66	0.84	0.51	0.32	12.69	3.80	1.50	0.58	0.82	0.45
3	1.59	0.53	1.59	0.83	0.50	1.57	11.50	3.71	1.32	0.55	0.75	0.44
4	1.67	0.55	1.53	0.82	0.49	4.18	9.54	3.27	1.16	0.53	0.69	0.43
5	1.46	0.58	1.47	0.80	0.48	4.39	7.88	2.75	1.03	0.51	0.64	0.43
6	1.27	0.60	1.43	0.79	0.47	3.72	6.52	2.33	0.93	0.49	0.60	0.43
7	1.10	0.63	1.38	0.78	0.47	3.11	5.39	1.98	0.84	0.48	0.66	0.42
8	0.97	0.66	1.35	0.76	0.46	2.60	4.47	1.70	0.77	0.47	0.64	0.42
9	0.86	0.69	1.31	0.75	0.45	2.19	3.71	1.46	0.71	0.46	0.79	0.41
10	0.77	0.72	1.28	0.74	0.44	1.85	3.08	1.27	1.06	0.45	0.78	0.42
11	0.70	0.75	1.25	0.73	0.44	1.57	2.56	2.51	1.07	0.44	0.71	0.42
12	0.71	0.78	1.22	0.71	0.43	1.33	2.17	3.26	0.96	0.44	0.66	0.41
13	0.67	2.87	1.20	0.70	0.42	1.14	4.27	2.96	0.87	0.43	0.63	1.14
14	0.62	3.17	1.17	0.69	0.42	0.98	4.72	2.55	0.79	0.44	0.59	1.24
15	0.57	2.80	1.15	0.68	0.41	0.85	4.59	2.18	0.73	0.44	0.56	1.09
16	0.53	2.50	1.13	0.67	0.40	0.75	4.10	1.87	0.68	0.43	0.53	0.97
17	0.50	5.04	1.11	0.66	0.40	0.66	3.60	1.61	0.64	0.43	0.51	0.87
18	0.47	5.17	1.09	0.65	0.39	0.74	3.17	1.40	0.60	0.42	0.49	0.78
19	0.47	4.48	1.07	0.64	0.38	0.70	2.74	1.22	0.57	0.42	0.48	0.72
20	0.45	3.91	1.05	0.63	0.38	1.32	2.56	1.08	0.55	0.42	0.46	0.67
21	0.44	3.45	1.03	0.62	0.37	1.95	4.98	0.96	0.54	0.41	0.45	0.62
22	0.42	3.08	1.01	0.61	0.37	2.53	5.58	0.86	0.52	0.41	0.44	0.58
23	0.41	2.78	1.00	0.60	0.36	3.49	5.39	0.78	0.51	0.41	0.46	0.55
24	0.39	2.53	0.98	0.59	0.35	8.26	9.59	0.71	0.49	0.40	0.62	0.52
25	0.61	2.33	0.96	0.58	0.35	8.17	10.71	0.66	0.48	1.82	0.63	0.50
26	0.63	2.17	0.95	0.57	0.34	6.76	10.28	2.07	0.51	1.98	0.59	0.48
27	0.71	2.04	0.93	0.56	0.34	5.59	8.80	2.19	0.50	1.71	0.56	0.47
28	0.69	1.94	0.92	0.55	0.33	4.64	7.38	1.88	0.49	1.48	0.53	0.45
29	0.63	1.86	0.90	0.54	0.0	6.76	6.14	2.42	0.48	1.30	0.51	0.44
30	0.58	1.79	0.89	0.53	0.0	10.57	5.39	2.34	0.60	1.14	0.49	0.43
31	0.54	0.0	0.87	0.52	0.0	12.94	0.0	2.01	0.0	1.01	0.47	0.0
TOT	22.70	61.41	36.59	20.97	11.66	105.95	185.00	64.33	23.64	21.51	18.67	17.65

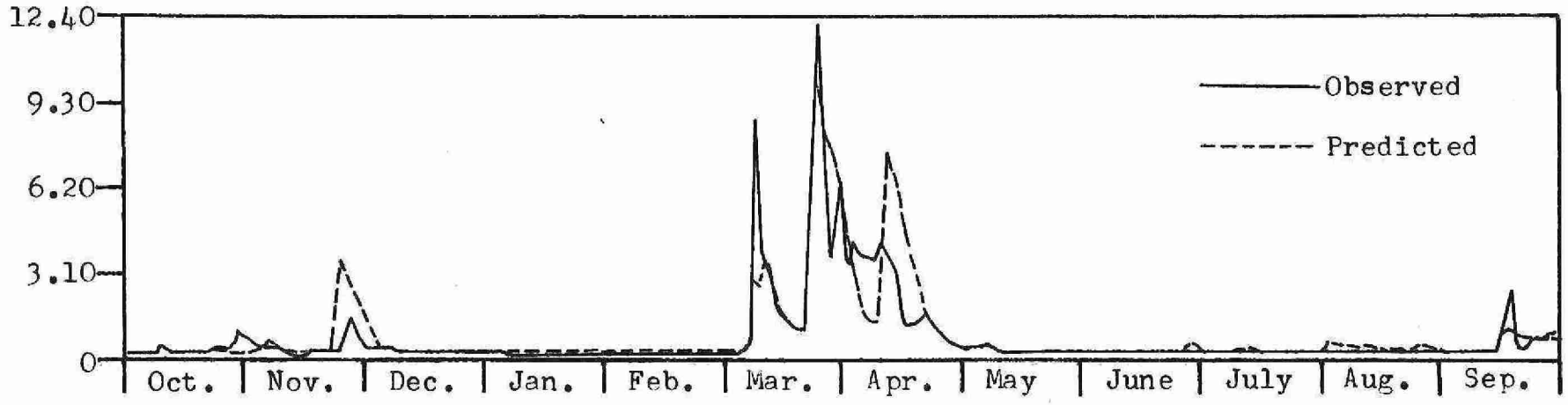
TOTAL FOR WATER YEAR = 590.10



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - HARP LAKE #6

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.10	0.09	1.52	0.22	0.19	0.17	7.77	0.46	0.30	0.41	0.66	0.38
2	0.10	0.09	1.21	0.22	0.19	0.17	7.61	0.43	0.30	0.38	0.57	0.35
3	0.09	0.09	0.97	0.22	0.19	0.17	6.81	0.40	0.30	0.35	0.49	0.33
4	0.09	0.09	0.80	0.22	0.19	0.17	5.25	0.38	0.29	0.33	0.52	0.32
5	0.08	0.10	0.66	0.22	0.19	0.17	4.22	0.36	0.29	0.48	0.51	0.30
6	0.39	0.15	0.56	0.22	0.19	0.17	3.38	0.35	0.29	0.53	0.45	0.29
7	0.49	0.16	0.48	0.21	0.19	0.16	2.65	0.34	0.29	0.47	0.41	0.29
8	0.39	0.15	0.42	0.21	0.19	0.16	2.10	0.33	0.29	0.42	0.40	0.28
9	0.32	0.14	0.38	0.21	0.19	0.16	1.68	0.32	0.29	0.39	0.38	0.28
10	0.26	0.14	0.35	0.21	0.18	0.18	1.37	0.32	0.28	0.36	0.36	0.32
11	0.21	0.13	0.32	0.21	0.18	0.39	1.59	0.31	0.28	0.34	0.34	0.34
12	0.18	0.13	0.30	0.21	0.18	2.25	4.71	0.31	0.28	0.32	0.32	0.32
13	0.16	0.13	0.28	0.21	0.18	2.93	7.17	0.31	0.28	0.31	0.31	0.32
14	0.14	0.13	0.27	0.21	0.18	2.69	6.58	0.30	0.28	0.30	0.30	0.32
15	0.13	0.13	0.26	0.21	0.18	3.76	5.17	0.30	0.28	0.29	0.29	0.30
16	0.12	0.28	0.26	0.21	0.18	4.19	4.14	0.30	0.29	0.29	0.30	0.31
17	0.11	0.33	0.25	0.21	0.18	3.50	3.46	0.30	0.29	0.28	0.30	0.31
18	0.10	0.30	0.25	0.20	0.18	2.72	2.97	0.30	0.30	0.28	0.29	0.30
19	0.09	0.28	0.24	0.20	0.18	2.12	2.76	0.30	0.30	0.28	0.47	0.29
20	0.09	0.25	0.24	0.20	0.18	1.68	2.67	0.30	0.30	0.27	0.52	0.76
21	0.13	0.22	0.24	0.20	0.18	1.34	2.49	0.30	0.29	0.27	0.65	0.91
22	0.20	0.21	0.23	0.20	0.17	1.08	2.10	0.29	0.29	0.27	0.67	0.75
23	0.20	0.19	0.23	0.20	0.17	0.89	1.68	0.29	0.29	0.27	0.57	0.64
24	0.17	0.19	0.23	0.20	0.17	0.74	1.36	0.29	0.28	0.28	0.50	0.55
25	0.15	0.18	0.23	0.20	0.17	0.63	1.11	0.29	0.28	0.29	0.44	0.48
26	0.13	2.94	0.23	0.20	0.17	0.54	0.92	0.29	0.28	0.28	0.40	0.56
27	0.12	4.00	0.23	0.20	0.17	0.55	0.77	0.29	0.28	0.28	0.37	0.62
28	0.11	3.16	0.23	0.20	0.17	4.20	0.66	0.29	0.45	0.27	0.34	0.57
29	0.10	2.45	0.22	0.19	0.0	6.42	0.57	0.29	0.50	0.27	0.43	0.59
30	0.10	1.92	0.22	0.19	0.0	9.96	0.50	0.29	0.45	0.27	0.45	0.56
31	0.09	0.0	0.22	0.19	0.0	10.14	0.0	0.29	0.0	0.56	0.41	0.0
TOT	5.12	18.73	12.55	6.40	5.06	64.39	96.20	9.93	9.20	10.43	13.39	12.94

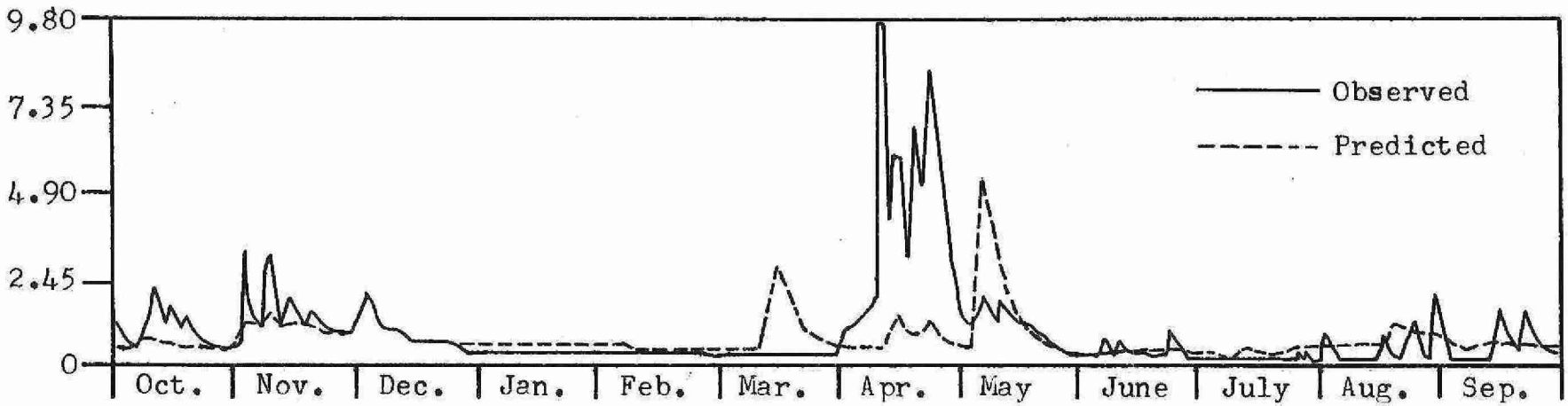
TOTAL FOR WATER YEAR = 264.31



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - HARP LAKE #6

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.63	0.27	1.76	0.57	0.50	0.44	0.44	0.37	0.29	0.33	0.43	0.47
2	0.63	0.28	2.14	0.57	0.50	0.44	0.43	0.34	0.29	0.31	0.70	0.43
3	0.54	1.14	1.78	0.57	0.49	0.43	0.42	0.31	0.28	0.30	0.78	0.39
4	0.47	1.44	1.50	0.57	0.49	0.43	0.40	0.30	0.32	0.30	0.65	0.37
5	0.43	1.18	1.29	0.56	0.49	0.43	0.39	0.35	0.34	0.29	0.56	0.35
6	0.39	0.98	1.13	0.56	0.49	0.43	0.38	1.15	0.32	0.28	0.49	0.34
7	0.36	0.86	1.01	0.56	0.49	0.43	0.45	1.48	0.39	0.28	0.44	0.33
8	0.71	0.76	0.92	0.56	0.48	0.43	0.47	3.02	0.41	0.28	0.40	0.32
9	0.83	0.67	0.85	0.55	0.48	0.42	0.43	4.52	0.37	0.27	0.37	0.32
10	0.69	1.25	0.79	0.55	0.48	0.42	0.40	4.14	0.35	0.27	0.34	0.34
11	0.67	1.50	0.75	0.55	0.48	0.42	1.27	3.20	0.33	0.27	0.32	0.36
12	0.67	1.28	0.72	0.55	0.47	0.42	1.67	2.53	0.54	0.27	0.31	0.35
13	0.60	1.09	0.69	0.54	0.47	0.42	1.64	2.01	0.61	0.30	0.30	0.34
14	0.52	0.94	0.67	0.54	0.47	2.10	1.46	1.59	0.53	0.31	0.29	0.65
15	0.53	0.84	0.66	0.54	0.47	2.68	1.18	1.27	0.47	0.30	0.29	0.75
16	0.51	0.93	0.65	0.54	0.47	2.14	0.96	1.03	0.42	0.29	0.97	0.64
17	0.45	0.93	0.64	0.53	0.46	1.72	0.80	0.85	0.39	0.29	1.20	0.56
18	0.41	0.84	0.63	0.53	0.46	1.41	0.84	0.71	0.36	0.28	1.00	0.50
19	0.38	0.77	0.62	0.53	0.46	1.18	1.21	0.61	0.34	0.28	0.96	0.45
20	0.35	0.72	0.62	0.53	0.46	1.00	1.37	0.53	0.33	0.28	0.87	0.46
21	0.33	0.69	0.61	0.52	0.46	0.86	1.19	0.47	0.31	0.28	0.72	0.47
22	0.32	0.67	0.61	0.52	0.45	0.76	0.97	0.42	0.30	0.56	0.62	0.44
23	0.31	0.65	0.60	0.52	0.45	0.68	0.80	0.39	0.30	0.66	0.90	0.40
24	0.30	0.63	0.60	0.52	0.45	0.62	0.68	0.36	0.29	0.56	0.96	0.37
25	0.29	0.63	0.59	0.51	0.45	0.57	0.63	0.34	0.29	0.49	0.79	0.35
26	0.29	0.62	0.59	0.51	0.44	0.54	0.60	0.33	0.30	0.61	0.67	0.34
27	0.28	0.62	0.59	0.51	0.44	0.51	0.58	0.32	0.30	0.63	0.82	0.43
28	0.28	0.62	0.59	0.51	0.44	0.49	0.57	0.31	0.29	0.54	0.83	0.46
29	0.28	0.63	0.58	0.51	0.0	0.48	0.51	0.30	0.34	0.57	0.71	0.42
30	0.28	0.63	0.58	0.50	0.0	0.46	0.44	0.30	0.35	0.55	0.60	0.43
31	0.27	0.0	0.58	0.50	0.0	0.45	0.0	0.29	0.0	0.48	0.53	0.0
TOT	14.00	25.06	26.34	16.63	13.14	24.21	23.62	34.15	10.75	11.74	19.83	12.83

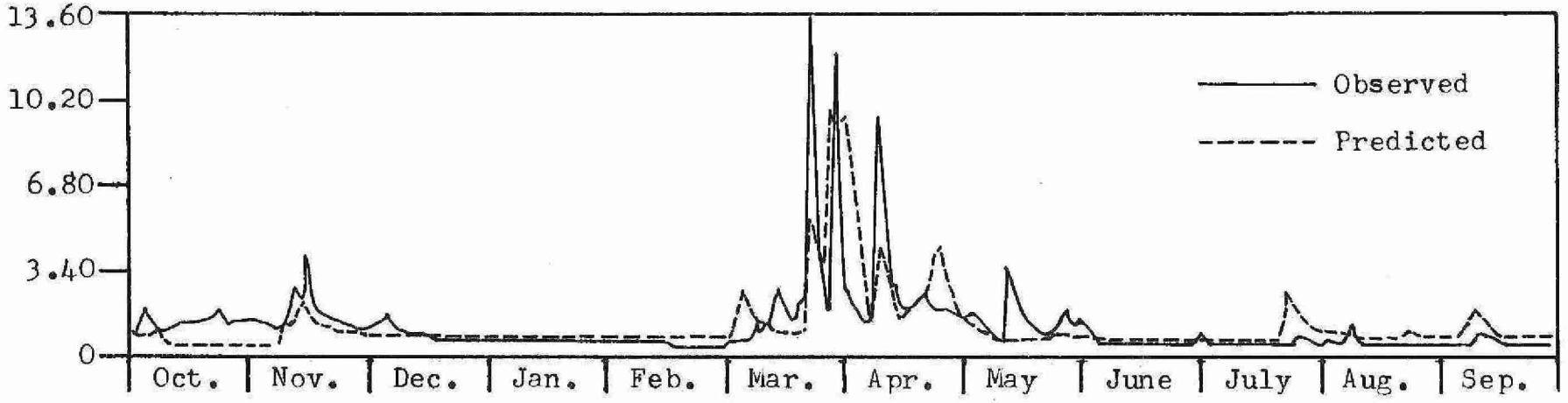
TOTAL FOR WATER YEAR = 232.31



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - HARP LAKE #6

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.42	0.31	0.68	0.55	0.48	0.42	7.86	1.39	0.63	0.49	0.91	0.45
2	0.39	0.31	0.67	0.55	0.48	0.42	8.29	1.16	0.58	0.47	0.80	0.44
3	0.73	0.32	0.66	0.55	0.48	0.87	7.75	1.05	0.54	0.45	0.70	0.43
4	0.84	0.32	0.65	0.55	0.47	2.29	6.05	0.94	0.51	0.44	0.63	0.42
5	0.71	0.33	0.64	0.54	0.47	2.60	4.72	0.81	0.48	0.43	0.58	0.42
6	0.61	0.34	0.63	0.54	0.47	2.09	3.71	0.72	0.47	0.42	0.53	0.43
7	0.53	0.35	0.63	0.54	0.47	1.70	2.95	0.65	0.45	0.41	0.66	0.43
8	0.47	0.36	0.62	0.54	0.47	1.39	2.37	0.59	0.44	0.41	0.68	0.42
9	0.43	0.37	0.62	0.53	0.46	1.17	1.92	0.55	0.44	0.40	0.87	0.41
10	0.39	0.38	0.62	0.53	0.46	0.99	1.58	0.52	0.52	0.40	0.91	0.43
11	0.37	0.39	0.61	0.53	0.46	0.86	1.32	0.76	0.55	0.40	0.79	0.43
12	0.37	0.40	0.61	0.53	0.46	0.76	1.17	0.93	0.51	0.39	0.69	0.42
13	0.36	1.08	0.60	0.52	0.46	0.69	3.74	0.86	0.49	0.39	0.64	1.58
14	0.34	1.33	0.60	0.52	0.45	0.63	4.73	0.76	0.47	0.40	0.59	1.97
15	0.33	1.12	0.60	0.52	0.45	0.58	4.14	0.68	0.45	0.40	0.55	1.59
16	0.32	0.97	0.60	0.52	0.45	0.55	3.48	0.62	0.44	0.40	0.51	1.30
17	0.31	1.83	0.59	0.51	0.45	0.52	2.83	0.57	0.43	0.40	0.49	1.08
18	0.30	2.08	0.59	0.51	0.45	0.52	2.34	0.53	0.43	0.39	0.47	0.92
19	0.30	1.71	0.59	0.51	0.44	0.50	1.92	0.50	0.42	0.39	0.45	0.80
20	0.30	1.43	0.58	0.51	0.44	0.63	1.66	0.48	0.42	0.39	0.44	0.71
21	0.30	1.22	0.58	0.51	0.44	0.78	2.66	0.47	0.42	0.39	0.43	0.64
22	0.29	1.07	0.58	0.50	0.44	0.91	3.01	0.45	0.42	0.39	0.42	0.58
23	0.29	0.95	0.58	0.50	0.44	1.23	2.62	0.44	0.41	0.38	0.46	0.54
24	0.29	0.87	0.57	0.50	0.43	4.91	4.19	0.44	0.41	0.38	0.69	0.51
25	0.34	0.80	0.57	0.50	0.43	5.93	4.76	0.43	0.41	2.36	0.74	0.48
26	0.36	0.76	0.57	0.49	0.43	4.61	4.08	0.72	0.42	3.02	0.66	0.46
27	0.37	0.73	0.57	0.49	0.43	3.61	3.30	0.82	0.42	2.40	0.60	0.45
28	0.36	0.71	0.56	0.49	0.43	2.85	2.61	0.72	0.42	1.93	0.55	0.44
29	0.34	0.69	0.56	0.49	0.0	3.92	2.07	0.79	0.41	1.56	0.51	0.43
30	0.33	0.68	0.56	0.49	0.0	6.89	1.70	0.78	0.47	1.28	0.49	0.42
31	0.32	0.0	0.56	0.48	0.0	8.79	0.0	0.69	0.0	1.07	0.47	0.0
TOT	12.42	24.21	18.64	16.05	12.67	64.63	105.51	21.85	13.87	23.42	18.88	20.01

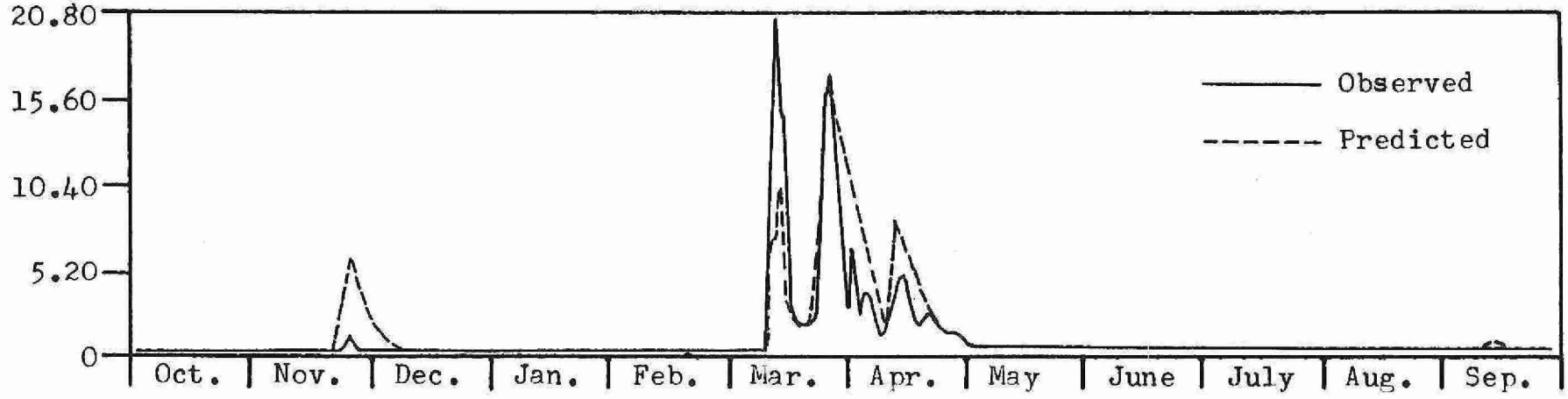
TOTAL FOR WATER YEAR = 352.17



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - HARP LAKE #6A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.13	0.12	2.04	0.27	0.22	0.18	12.17	0.38	0.24	0.36	0.66	0.34
2	0.12	0.12	1.58	0.26	0.22	0.18	12.37	0.36	0.24	0.32	0.54	0.30
3	0.12	0.12	1.24	0.26	0.22	0.18	10.89	0.33	0.24	0.29	0.45	0.28
4	0.12	0.13	0.99	0.26	0.22	0.18	8.02	0.30	0.23	0.27	0.48	0.26
5	0.11	0.13	0.81	0.26	0.21	0.18	6.25	0.29	0.23	0.45	0.47	0.25
6	0.49	0.20	0.67	0.26	0.21	0.18	4.81	0.28	0.23	0.50	0.40	0.24
7	0.59	0.22	0.58	0.26	0.21	0.18	3.57	0.27	0.23	0.43	0.35	0.23
8	0.47	0.20	0.50	0.25	0.21	0.18	2.65	0.26	0.23	0.37	0.34	0.23
9	0.37	0.19	0.45	0.25	0.21	0.18	1.98	0.26	0.22	0.33	0.33	0.22
10	0.30	0.18	0.41	0.25	0.21	0.51	1.52	0.25	0.22	0.30	0.30	0.28
11	0.25	0.18	0.38	0.25	0.21	1.74	1.87	0.25	0.22	0.28	0.28	0.30
12	0.22	0.17	0.36	0.25	0.21	5.88	6.07	0.25	0.22	0.26	0.26	0.28
13	0.19	0.17	0.34	0.25	0.20	7.31	9.15	0.24	0.22	0.25	0.25	0.28
14	0.17	0.17	0.33	0.24	0.20	7.39	8.14	0.24	0.22	0.24	0.24	0.28
15	0.16	0.17	0.32	0.24	0.20	9.73	6.17	0.24	0.22	0.23	0.23	0.26
16	0.15	0.39	0.31	0.24	0.20	10.69	4.78	0.24	0.23	0.23	0.24	0.27
17	0.14	0.46	0.30	0.24	0.20	8.77	3.90	0.24	0.23	0.22	0.24	0.26
18	0.13	0.42	0.30	0.24	0.20	6.47	3.26	0.24	0.24	0.22	0.23	0.25
19	0.13	0.38	0.29	0.24	0.20	4.78	3.01	0.24	0.25	0.22	0.45	0.24
20	0.12	0.33	0.29	0.24	0.20	3.55	2.90	0.24	0.24	0.21	0.50	0.80
21	0.17	0.30	0.29	0.23	0.19	2.64	2.68	0.24	0.23	0.21	0.65	0.95
22	0.25	0.28	0.28	0.23	0.19	1.98	2.19	0.23	0.23	0.21	0.66	0.76
23	0.25	0.26	0.28	0.23	0.19	1.49	1.69	0.23	0.22	0.21	0.54	0.61
24	0.21	0.25	0.28	0.23	0.19	1.14	1.31	0.23	0.22	0.23	0.45	0.51
25	0.19	0.24	0.28	0.23	0.19	0.88	1.04	0.23	0.22	0.23	0.39	0.43
26	0.17	4.64	0.28	0.23	0.19	0.68	0.83	0.23	0.22	0.22	0.34	0.54
27	0.15	6.08	0.27	0.23	0.19	1.22	0.68	0.23	0.22	0.22	0.31	0.62
28	0.14	4.69	0.27	0.22	0.19	7.66	0.56	0.23	0.42	0.22	0.28	0.55
29	0.13	3.52	0.27	0.22	0.0	11.82	0.48	0.23	0.47	0.21	0.39	0.57
30	0.13	2.67	0.27	0.22	0.0	17.42	0.41	0.23	0.41	0.21	0.41	0.54
31	0.12	0.0	0.27	0.22	0.0	16.55	0.0	0.23	0.0	0.56	0.37	0.0
TOT	6.41	27.39	15.52	7.51	5.66	131.93	125.36	7.90	7.45	8.71	12.05	11.92

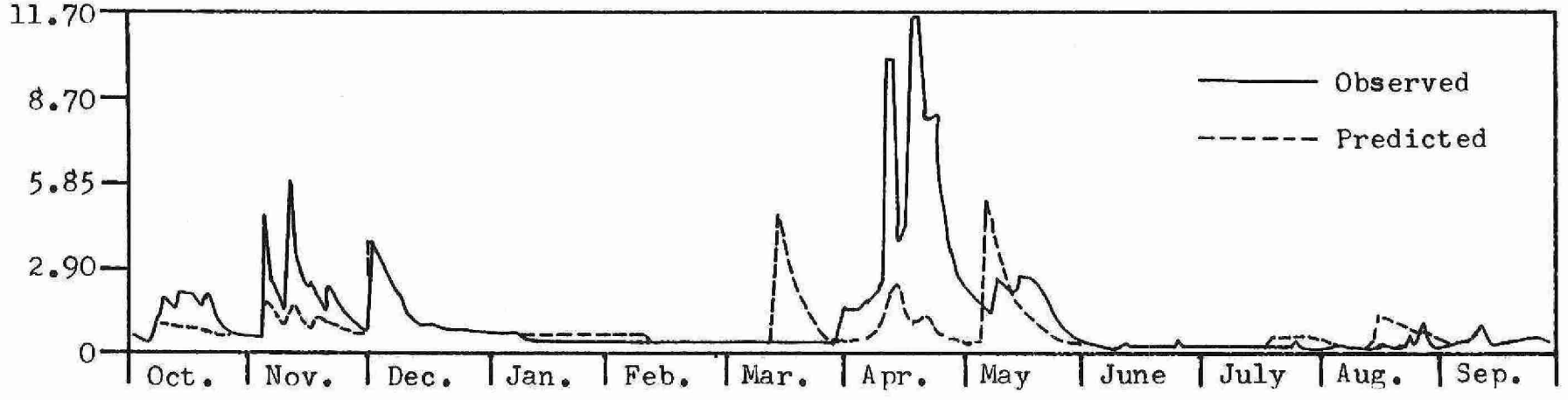
TOTAL FOR WATER YEAR = 367.84



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - HARP LAKE #6A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.64	0.24	3.51	0.47	0.38	0.32	0.29	0.35	0.29	0.34	0.43	0.48
2	0.63	0.24	4.24	0.46	0.38	0.32	0.28	0.31	0.29	0.32	0.77	0.43
3	0.52	1.29	3.26	0.46	0.38	0.32	0.27	0.28	0.28	0.31	0.84	0.40
4	0.44	1.58	2.53	0.46	0.38	0.32	0.26	0.27	0.33	0.30	0.69	0.37
5	0.39	1.25	2.00	0.45	0.38	0.32	0.25	0.33	0.34	0.29	0.58	0.35
6	0.35	1.00	1.61	0.45	0.37	0.31	0.25	1.30	0.33	0.28	0.50	0.35
7	0.32	0.85	1.32	0.45	0.37	0.31	0.39	1.65	0.41	0.28	0.44	0.34
8	0.75	0.73	1.11	0.45	0.37	0.31	0.42	3.48	0.42	0.28	0.39	0.33
9	0.86	0.63	0.95	0.44	0.37	0.31	0.37	5.42	0.38	0.27	0.36	0.33
10	0.70	1.38	0.84	0.44	0.36	0.31	0.32	4.93	0.36	0.27	0.34	0.36
11	0.68	1.65	0.75	0.44	0.36	0.31	1.63	3.69	0.33	0.27	0.32	0.39
12	0.67	1.37	0.69	0.43	0.36	0.30	2.16	2.83	0.59	0.27	0.31	0.38
13	0.59	1.12	0.64	0.43	0.36	0.30	2.08	2.18	0.66	0.31	0.30	0.35
14	0.50	0.94	0.61	0.43	0.36	4.03	1.78	1.68	0.56	0.32	0.29	0.74
15	0.51	0.82	0.58	0.43	0.35	4.96	1.37	1.31	0.48	0.30	0.29	0.84
16	0.48	0.97	0.56	0.42	0.35	3.71	1.06	1.04	0.43	0.29	1.12	0.70
17	0.42	0.97	0.54	0.42	0.35	2.80	0.84	0.84	0.39	0.28	1.35	0.59
18	0.37	0.85	0.53	0.42	0.35	2.12	0.90	0.69	0.36	0.28	1.10	0.52
19	0.34	0.76	0.52	0.42	0.34	1.63	1.40	0.59	0.34	0.28	1.04	0.47
20	0.31	0.69	0.51	0.41	0.34	1.27	1.59	0.51	0.33	0.28	0.92	0.49
21	0.29	0.66	0.51	0.41	0.34	1.01	1.33	0.45	0.31	0.27	0.75	0.50
22	0.28	0.63	0.50	0.41	0.34	0.81	1.04	0.41	0.30	0.62	0.63	0.46
23	0.27	0.60	0.50	0.41	0.34	0.67	0.82	0.37	0.30	0.72	0.98	0.42
24	0.26	0.59	0.49	0.40	0.33	0.57	0.69	0.35	0.29	0.60	1.03	0.39
25	0.25	0.57	0.49	0.40	0.33	0.49	0.63	0.33	0.29	0.51	0.84	0.37
26	0.25	0.57	0.48	0.40	0.33	0.43	0.59	0.32	0.30	0.66	0.69	0.35
27	0.25	0.56	0.48	0.40	0.33	0.39	0.58	0.31	0.30	0.67	0.88	0.47
28	0.24	0.56	0.48	0.39	0.33	0.36	0.57	0.30	0.29	0.56	0.89	0.50
29	0.24	0.56	0.47	0.39	0.0	0.33	0.50	0.30	0.35	0.60	0.74	0.45
30	0.24	0.57	0.47	0.39	0.0	0.32	0.42	0.29	0.36	0.57	0.63	0.46
31	0.24	0.0	0.47	0.39	0.0	0.30	0.0	0.29	0.0	0.49	0.54	0.0
TOT	13.27	25.19	32.66	13.17	9.93	30.26	25.09	37.42	10.99	12.08	20.98	13.58

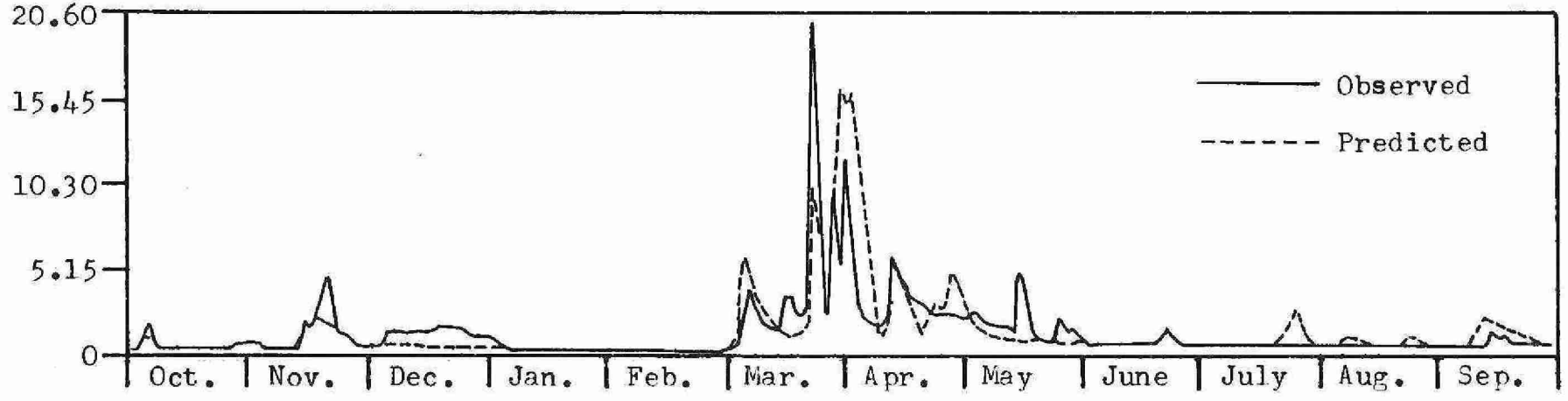
TOTAL FOR WATER YEAR = 244.63



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - HARP LAKE #6A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.45	0.32	0.70	0.55	0.46	0.39	13.84	1.29	0.56	0.43	0.83	0.40
2	0.41	0.32	0.69	0.55	0.45	0.38	14.43	1.04	0.51	0.40	0.71	0.39
3	0.84	0.33	0.68	0.55	0.45	2.08	13.04	0.94	0.46	0.38	0.61	0.38
4	0.95	0.34	0.67	0.54	0.45	5.68	9.74	0.83	0.43	0.37	0.54	0.37
5	0.78	0.34	0.66	0.54	0.45	6.25	7.22	0.70	0.41	0.35	0.49	0.36
6	0.66	0.35	0.66	0.54	0.44	4.85	5.37	0.61	0.39	0.35	0.45	0.38
7	0.57	0.36	0.65	0.53	0.44	3.65	4.01	0.54	0.38	0.34	0.61	0.38
8	0.50	0.37	0.64	0.53	0.44	2.77	3.01	0.48	0.37	0.33	0.64	0.37
9	0.45	0.38	0.64	0.53	0.44	2.13	2.28	0.45	0.36	0.33	0.87	0.36
10	0.41	0.39	0.63	0.52	0.43	1.66	1.74	0.42	0.47	0.33	0.90	0.38
11	0.38	0.40	0.63	0.52	0.43	1.31	1.34	0.72	0.49	0.32	0.75	0.38
12	0.39	0.41	0.63	0.52	0.43	1.05	1.11	0.91	0.45	0.32	0.65	0.37
13	0.38	1.32	0.62	0.51	0.43	0.87	4.59	0.83	0.42	0.32	0.59	1.77
14	0.36	1.59	0.62	0.51	0.42	0.73	5.72	0.71	0.40	0.33	0.53	2.15
15	0.34	1.30	0.61	0.51	0.42	0.63	4.89	0.61	0.38	0.34	0.49	1.67
16	0.33	1.08	0.61	0.50	0.42	0.55	3.97	0.54	0.37	0.33	0.45	1.32
17	0.32	2.31	0.61	0.50	0.41	0.50	3.10	0.49	0.36	0.33	0.43	1.07
18	0.32	2.60	0.60	0.50	0.41	0.71	2.46	0.45	0.35	0.32	0.41	0.88
19	0.32	2.06	0.60	0.50	0.41	0.75	1.94	0.42	0.35	0.32	0.39	0.74
20	0.32	1.67	0.60	0.49	0.41	1.59	1.63	0.40	0.35	0.32	0.38	0.65
21	0.31	1.38	0.59	0.49	0.40	2.61	2.92	0.39	0.35	0.31	0.37	0.58
22	0.31	1.18	0.59	0.49	0.40	3.40	3.30	0.38	0.34	0.31	0.37	0.52
23	0.31	1.03	0.58	0.48	0.40	4.62	2.79	0.37	0.34	0.31	0.41	0.48
24	0.30	0.92	0.58	0.48	0.40	10.62	4.71	0.36	0.34	0.31	0.69	0.45
25	0.37	0.85	0.58	0.48	0.40	11.16	5.28	0.36	0.34	2.67	0.75	0.43
26	0.38	0.80	0.57	0.47	0.39	8.26	4.41	0.71	0.35	3.31	0.64	0.41
27	0.40	0.76	0.57	0.47	0.39	6.14	3.45	0.81	0.36	2.54	0.57	0.39
28	0.39	0.73	0.57	0.47	0.39	4.59	2.64	0.69	0.35	1.97	0.51	0.39
29	0.36	0.72	0.56	0.47	0.0	7.17	2.03	0.76	0.34	1.54	0.47	0.38
30	0.35	0.71	0.56	0.46	0.0	12.57	1.62	0.75	0.41	1.22	0.44	0.37
31	0.33	0.0	0.56	0.46	0.0	15.99	0.0	0.64	0.0	0.99	0.41	0.0
TOT	13.29	27.32	19.06	15.66	11.81	125.68	138.55	19.60	11.79	22.35	17.34	19.15

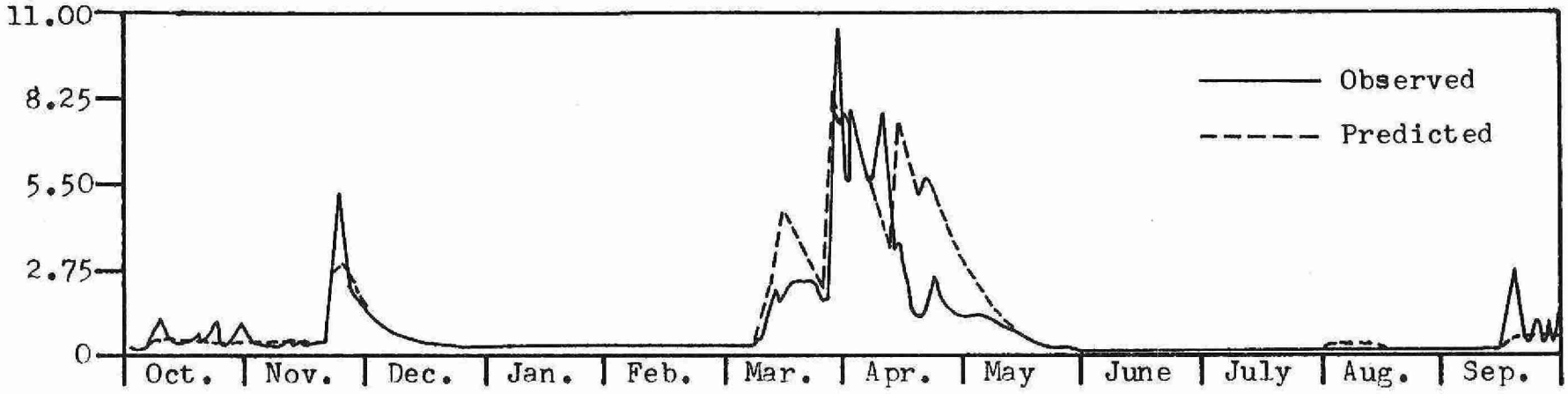
TOTAL FOR WATER YEAR = 441.60



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - JERRY LAKE #1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.34	0.18	2.19	0.40	0.27	0.23	7.56	2.28	0.28	0.32	0.51	0.45
2	0.31	0.17	2.02	0.39	0.27	0.22	8.41	2.09	0.28	0.31	0.47	0.42
3	0.29	0.17	1.86	0.38	0.26	0.22	7.95	1.91	0.27	0.29	0.44	0.40
4	0.27	0.17	1.72	0.38	0.26	0.22	7.23	1.75	0.26	0.28	0.49	0.38
5	0.25	0.19	1.59	0.37	0.26	0.22	6.57	1.60	0.25	0.36	0.48	0.36
6	0.49	0.19	1.48	0.36	0.26	0.22	5.98	1.47	0.24	0.37	0.45	0.34
7	0.51	0.19	1.37	0.35	0.26	0.22	5.44	1.35	0.23	0.35	0.42	0.33
8	0.47	0.19	1.28	0.35	0.26	0.22	4.95	1.24	0.22	0.33	0.42	0.31
9	0.43	0.19	1.19	0.34	0.25	0.22	4.50	1.14	0.22	0.32	0.41	0.30
10	0.40	0.20	1.11	0.34	0.25	0.24	4.10	1.05	0.21	0.30	0.39	0.33
11	0.37	0.20	1.04	0.33	0.25	0.61	4.16	0.96	0.21	0.29	0.37	0.32
12	0.34	0.20	0.97	0.33	0.25	2.30	6.15	0.89	0.20	0.28	0.35	0.31
13	0.32	0.20	0.91	0.32	0.25	2.74	7.40	0.82	0.20	0.27	0.33	0.32
14	0.29	0.21	0.86	0.32	0.25	3.06	7.08	0.76	0.19	0.26	0.32	0.31
15	0.28	0.21	0.81	0.31	0.25	4.30	6.50	0.70	0.19	0.25	0.30	0.29
16	0.26	0.43	0.76	0.31	0.24	4.91	6.00	0.65	0.20	0.24	0.30	0.30
17	0.24	0.47	0.72	0.31	0.24	4.62	5.64	0.61	0.20	0.23	0.29	0.29
18	0.23	0.53	0.69	0.30	0.24	4.21	5.29	0.57	0.20	0.22	0.28	0.28
19	0.21	0.53	0.65	0.30	0.24	3.84	5.13	0.53	0.20	0.22	0.44	0.27
20	0.20	0.51	0.62	0.30	0.24	3.51	5.89	0.50	0.20	0.21	0.45	0.67
21	0.19	0.49	0.59	0.29	0.24	3.20	5.84	0.46	0.20	0.21	0.59	0.71
22	0.18	0.47	0.57	0.29	0.24	2.93	5.37	0.44	0.19	0.20	0.59	0.66
23	0.17	0.46	0.54	0.29	0.23	2.68	4.88	0.41	0.19	0.20	0.55	0.62
24	0.16	0.45	0.52	0.29	0.23	2.45	4.44	0.39	0.18	0.21	0.52	0.58
25	0.15	0.44	0.50	0.28	0.23	2.24	4.03	0.37	0.18	0.21	0.49	0.54
26	0.14	2.59	0.48	0.28	0.23	2.06	3.66	0.35	0.18	0.20	0.46	0.62
27	0.14	2.98	0.47	0.28	0.23	2.06	3.33	0.33	0.18	0.20	0.43	0.67
28	0.13	2.78	0.45	0.28	0.23	4.58	3.02	0.31	0.34	0.20	0.41	0.63
29	0.13	2.56	0.44	0.27	0.0	5.78	2.75	0.30	0.36	0.19	0.50	0.69
30	0.18	2.37	0.43	0.27	0.0	8.49	2.49	0.29	0.34	0.19	0.50	0.66
31	0.19	0.0	0.41	0.27	0.0	8.31	0.0	0.27	0.0	0.47	0.48	0.0
TOT	8.25	20.92	29.23	9.88	6.91	81.08	161.73	26.76	6.77	8.20	13.41	13.35

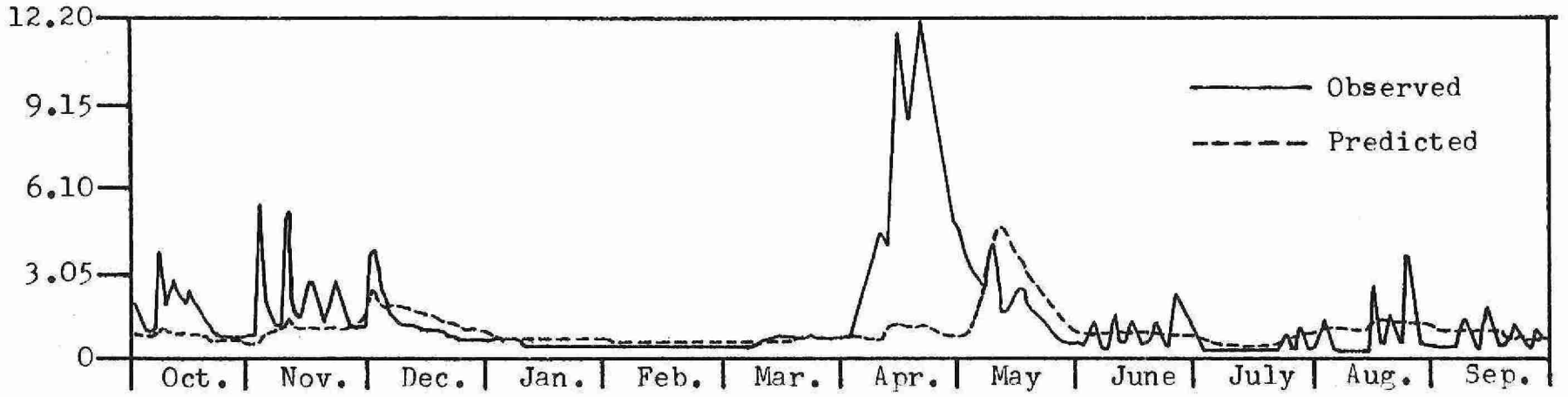
TOTAL FOR WATER YEAR = 386.49



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APTOS - JERRY LAKE #1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.75	0.31	2.45	0.85	0.64	0.54	0.46	0.70	0.84	0.37	0.54	0.83
2	0.73	0.32	2.56	0.83	0.64	0.54	0.44	0.65	0.78	0.36	0.77	0.78
3	0.68	1.06	2.40	0.82	0.63	0.54	0.43	0.60	0.73	0.34	0.77	0.73
4	0.64	1.16	2.26	0.81	0.63	0.53	0.41	0.57	0.72	0.34	0.73	0.69
5	0.60	1.10	2.12	0.80	0.62	0.53	0.40	0.59	0.68	0.33	0.68	0.65
6	0.56	1.05	2.00	0.79	0.62	0.53	0.39	1.22	0.64	0.32	0.64	0.62
7	0.53	1.02	1.89	0.78	0.62	0.53	0.38	1.35	0.67	0.31	0.60	0.59
8	0.86	0.99	1.79	0.77	0.61	0.52	0.36	2.64	0.64	0.30	0.57	0.56
9	0.88	0.95	1.70	0.76	0.61	0.52	0.35	3.93	0.60	0.30	0.54	0.54
10	0.82	1.50	1.62	0.76	0.61	0.52	0.34	4.47	0.57	0.29	0.51	0.56
11	0.83	1.62	1.54	0.75	0.60	0.51	0.83	4.70	0.54	0.29	0.49	0.56
12	0.83	1.55	1.48	0.74	0.60	0.51	1.00	4.42	0.74	0.28	0.47	0.54
13	0.78	1.47	1.41	0.74	0.60	0.51	1.30	4.04	0.75	0.31	0.45	0.51
14	0.72	1.40	1.35	0.73	0.59	0.50	1.28	3.69	0.70	0.30	0.43	0.76
15	0.74	1.36	1.30	0.72	0.59	0.50	1.18	3.37	0.66	0.30	0.41	0.77
16	0.70	1.48	1.25	0.72	0.59	0.50	1.09	3.08	0.62	0.29	1.04	0.73
17	0.65	1.46	1.21	0.71	0.58	0.50	1.00	2.82	0.59	0.29	1.10	0.68
18	0.61	1.40	1.17	0.70	0.58	0.49	1.06	2.58	0.56	0.28	1.05	0.65
19	0.57	1.35	1.13	0.70	0.58	0.49	1.34	2.36	0.53	0.28	1.06	0.62
20	0.54	1.31	1.10	0.69	0.57	0.49	1.47	2.16	0.50	0.28	1.01	0.63
21	0.51	1.28	1.07	0.69	0.57	0.49	1.38	1.99	0.48	0.27	0.94	0.66
22	0.48	1.25	1.04	0.68	0.57	0.48	1.27	1.82	0.45	0.51	0.87	0.64
23	0.45	1.22	1.01	0.68	0.56	0.48	1.16	1.68	0.43	0.54	1.15	0.60
24	0.43	1.20	0.99	0.67	0.56	0.48	1.08	1.54	0.42	0.51	1.14	0.57
25	0.41	1.18	0.96	0.67	0.56	0.47	1.03	1.42	0.40	0.49	1.06	0.55
26	0.39	1.16	0.94	0.67	0.55	0.47	0.98	1.31	0.39	0.61	0.99	0.52
27	0.37	1.14	0.92	0.66	0.55	0.47	0.95	1.21	0.39	0.61	1.12	0.60
28	0.36	1.13	0.91	0.66	0.55	0.47	0.92	1.12	0.38	0.57	1.09	0.59
29	0.34	1.12	0.89	0.65	0.0	0.46	0.85	1.04	0.39	0.62	1.01	0.56
30	0.33	1.12	0.87	0.65	0.0	0.46	0.77	0.97	0.38	0.60	0.95	0.59
31	0.32	0.0	0.86	0.64	0.0	0.46	0.0	0.90	0.0	0.57	0.88	0.0
TOT	18.40	35.64	44.23	22.51	16.36	15.50	25.90	64.92	17.15	12.04	25.04	18.85

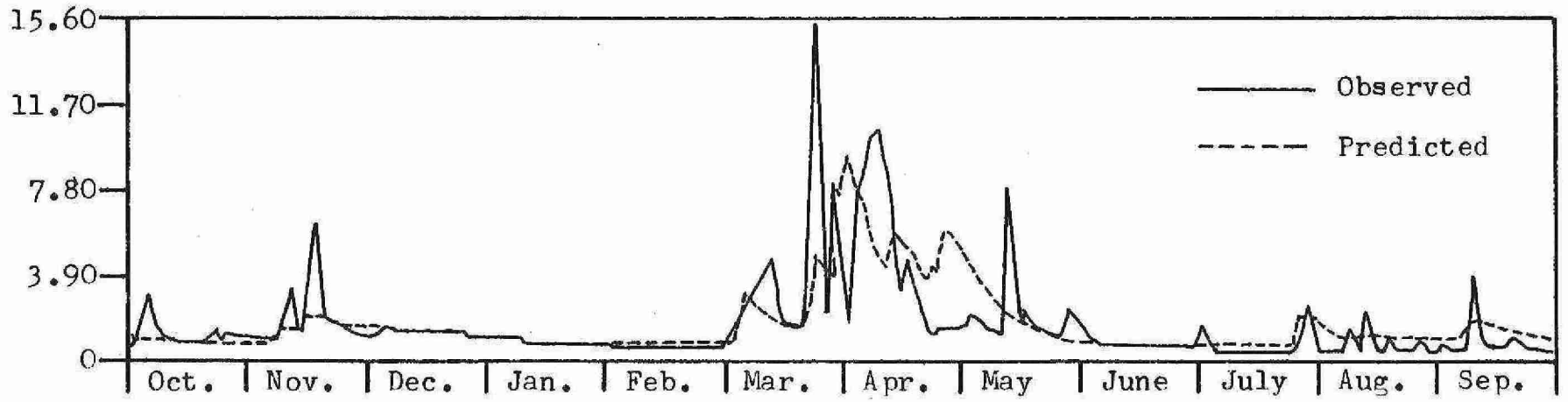
TOTAL FOR WATER YEAR = 316.73



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APTOS - JERRY LAKE #1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.58	0.39	1.60	1.01	0.83	0.71	8.11	3.67	0.81	0.43	1.27	0.59
2	0.55	0.41	1.55	1.01	0.83	0.71	9.26	3.35	0.76	0.41	1.18	0.56
3	0.90	0.43	1.51	1.00	0.83	1.35	8.89	3.13	0.72	0.40	1.10	0.54
4	0.92	0.45	1.47	0.99	0.82	2.85	8.13	2.87	0.68	0.39	1.03	0.52
5	0.87	0.47	1.44	0.98	0.82	2.99	7.42	2.63	0.64	0.38	0.96	0.50
6	0.81	0.49	1.40	0.98	0.81	2.79	6.76	2.41	0.61	0.37	0.90	0.49
7	0.77	0.51	1.37	0.97	0.81	2.59	6.17	2.22	0.58	0.36	0.97	0.47
8	0.72	0.54	1.35	0.96	0.80	2.41	5.63	2.04	0.55	0.35	0.94	0.46
9	0.68	0.56	1.32	0.96	0.80	2.25	5.14	1.87	0.53	0.35	1.10	0.44
10	0.64	0.58	1.30	0.95	0.79	2.10	4.69	1.72	0.60	0.34	1.08	0.45
11	0.61	0.61	1.27	0.95	0.79	1.97	4.29	1.77	0.59	0.34	1.00	0.44
12	0.60	0.63	1.25	0.94	0.78	1.85	3.96	1.77	0.56	0.33	0.94	0.43
13	0.58	1.28	1.23	0.93	0.78	1.74	5.64	1.66	0.53	0.33	0.89	1.33
14	0.55	1.40	1.21	0.93	0.78	1.63	5.76	1.53	0.51	0.33	0.84	1.43
15	0.53	1.36	1.20	0.92	0.77	1.54	5.58	1.42	0.49	0.33	0.79	1.32
16	0.51	1.33	1.18	0.92	0.77	1.46	5.20	1.31	0.47	0.32	0.75	1.23
17	0.48	2.20	1.17	0.91	0.76	1.38	4.81	1.22	0.45	0.32	0.71	1.15
18	0.47	2.32	1.15	0.91	0.76	1.34	4.43	1.13	0.44	0.31	0.67	1.07
19	0.46	2.21	1.14	0.90	0.75	1.29	4.07	1.05	0.42	0.31	0.63	1.00
20	0.44	2.11	1.13	0.90	0.75	1.52	3.79	0.98	0.41	0.31	0.60	0.94
21	0.43	2.03	1.11	0.89	0.75	1.77	4.50	0.91	0.40	0.30	0.58	0.89
22	0.41	1.95	1.10	0.88	0.74	2.03	4.48	0.85	0.39	0.30	0.55	0.84
23	0.40	1.89	1.09	0.88	0.74	2.49	4.23	0.80	0.38	0.30	0.56	0.79
24	0.39	1.83	1.08	0.87	0.73	5.18	5.47	0.75	0.37	0.30	0.84	0.74
25	0.43	1.78	1.07	0.87	0.73	5.29	6.05	0.71	0.36	1.84	0.86	0.71
26	0.43	1.73	1.06	0.86	0.72	4.86	5.83	1.01	0.37	2.02	0.81	0.67
27	0.44	1.70	1.05	0.86	0.72	4.47	5.34	1.01	0.36	1.87	0.76	0.64
28	0.43	1.66	1.04	0.85	0.72	4.11	4.86	0.95	0.36	1.72	0.72	0.61
29	0.42	1.64	1.04	0.85	0.0	5.21	4.41	0.97	0.35	1.59	0.68	0.58
30	0.41	1.61	1.03	0.84	0.0	7.21	4.04	0.93	0.42	1.47	0.65	0.56
31	0.40	0.0	1.02	0.84	0.0	8.54	0.0	0.87	0.0	1.36	0.61	0.0
101	17.26	38.09	37.95	28.52	21.67	87.64	166.96	49.52	15.12	20.09	25.97	22.38

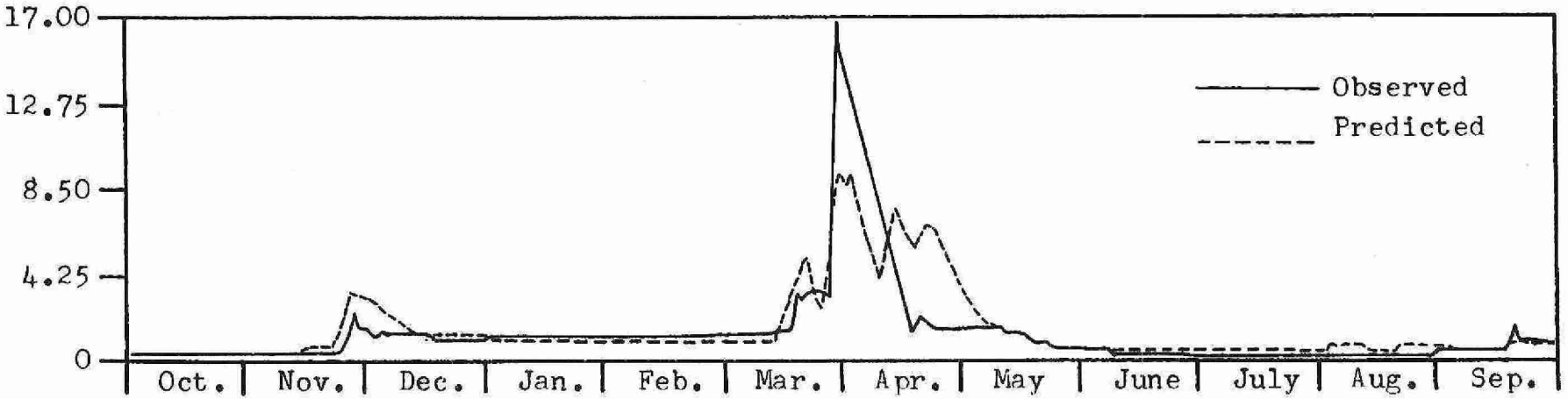
TOTAL FOR WATER YEAR = 531.18



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - JERRY LAKE #3

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.41	0.26	2.58	0.49	0.32	0.25	8.38	2.41	0.34	0.42	0.63	0.56
2	0.38	0.26	2.37	0.48	0.32	0.25	9.12	2.20	0.34	0.40	0.59	0.53
3	0.36	0.26	2.18	0.47	0.32	0.25	8.78	2.01	0.33	0.39	0.56	0.50
4	0.34	0.25	2.01	0.46	0.31	0.24	7.92	1.83	0.32	0.37	0.60	0.47
5	0.32	0.24	1.86	0.45	0.31	0.24	7.14	1.68	0.31	0.45	0.60	0.45
6	0.57	0.28	1.72	0.44	0.31	0.24	6.44	1.53	0.30	0.48	0.56	0.43
7	0.63	0.29	1.60	0.43	0.30	0.24	5.81	1.41	0.29	0.46	0.53	0.41
8	0.59	0.29	1.49	0.43	0.30	0.24	5.24	1.29	0.29	0.43	0.52	0.39
9	0.54	0.29	1.38	0.42	0.30	0.23	4.73	1.19	0.28	0.41	0.51	0.38
10	0.50	0.29	1.29	0.41	0.30	0.30	4.28	1.09	0.28	0.39	0.48	0.41
11	0.47	0.30	1.21	0.41	0.29	0.76	4.32	1.01	0.27	0.38	0.46	0.42
12	0.43	0.30	1.13	0.40	0.29	2.54	6.39	0.93	0.27	0.36	0.44	0.40
13	0.40	0.31	1.06	0.40	0.29	3.28	7.99	0.86	0.26	0.35	0.42	0.41
14	0.38	0.31	1.00	0.39	0.29	3.67	7.83	0.80	0.26	0.34	0.40	0.40
15	0.36	0.31	0.95	0.39	0.28	4.97	7.15	0.74	0.25	0.32	0.38	0.39
16	0.34	0.56	0.90	0.38	0.28	5.77	6.57	0.69	0.26	0.31	0.38	0.38
17	0.32	0.66	0.85	0.38	0.28	5.49	6.14	0.65	0.26	0.31	0.37	0.38
18	0.30	0.71	0.81	0.37	0.28	4.96	5.76	0.61	0.28	0.30	0.36	0.36
19	0.29	0.72	0.77	0.37	0.27	4.49	5.57	0.57	0.26	0.29	0.52	0.35
20	0.27	0.69	0.73	0.36	0.27	4.06	6.36	0.54	0.27	0.28	0.56	0.76
21	0.26	0.67	0.70	0.36	0.27	3.67	6.47	0.51	0.27	0.28	0.70	0.88
22	0.25	0.65	0.67	0.35	0.27	3.33	5.95	0.48	0.26	0.27	0.73	0.82
23	0.24	0.63	0.65	0.35	0.26	3.02	5.38	0.46	0.26	0.27	0.68	0.76
24	0.23	0.62	0.62	0.35	0.26	2.73	4.86	0.43	0.26	0.28	0.64	0.71
25	0.22	0.60	0.60	0.34	0.26	2.48	4.39	0.41	0.25	0.28	0.60	0.67
26	0.21	2.77	0.58	0.34	0.26	2.25	3.97	0.40	0.25	0.27	0.56	0.75
27	0.20	3.53	0.56	0.34	0.26	2.29	3.59	0.38	0.25	0.27	0.53	0.82
28	0.20	3.32	0.55	0.33	0.25	4.79	3.25	0.36	0.41	0.26	0.50	0.79
29	0.20	3.04	0.53	0.33	0.0	6.40	2.93	0.35	0.46	0.26	0.60	0.85
30	0.26	2.80	0.52	0.33	0.0	9.14	2.65	0.34	0.44	0.26	0.61	0.83
31	0.27	0.0	0.50	0.32	0.0	9.28	0.0	0.33	0.0	0.55	0.59	0.0
TOT	10.72	26.25	34.40	12.08	7.99	91.88	175.36	28.49	8.86	10.68	16.61	16.68

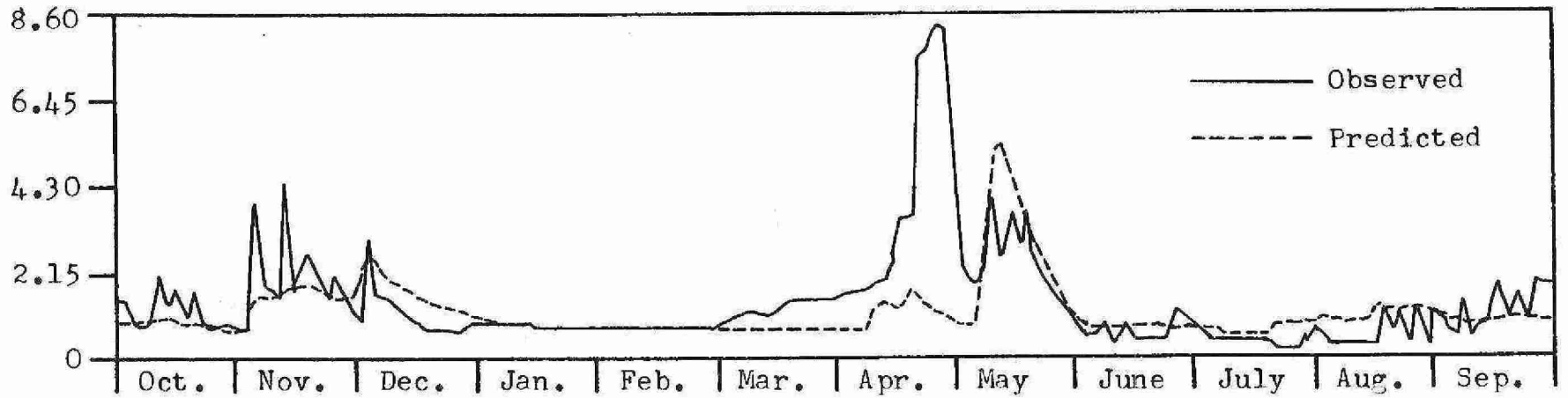
TOTAL FOR WATER YEAR = 440.00



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - JERRY LAKE #3

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.93	0.40	2.65	0.89	0.63	0.49	0.38	0.79	0.96	0.50	0.69	1.01
2	0.93	0.41	2.96	0.88	0.62	0.49	0.37	0.73	0.90	0.48	0.92	0.95
3	0.87	1.17	2.76	0.86	0.62	0.48	0.35	0.68	0.84	0.47	0.97	0.90
4	0.81	1.41	2.58	0.85	0.61	0.48	0.34	0.64	0.83	0.46	0.91	0.85
5	0.76	1.33	2.42	0.84	0.60	0.48	0.33	0.66	0.80	0.45	0.86	0.81
6	0.71	1.27	2.27	0.83	0.60	0.47	0.32	1.30	0.76	0.44	0.81	0.78
7	0.67	1.23	2.13	0.81	0.59	0.47	0.31	1.55	0.78	0.43	0.77	0.74
8	1.01	1.19	2.01	0.80	0.59	0.46	0.30	2.84	0.77	0.43	0.73	0.71
9	1.09	1.14	1.90	0.79	0.58	0.46	0.29	4.37	0.73	0.42	0.69	0.68
10	1.01	1.69	1.80	0.78	0.58	0.46	0.28	5.08	0.69	0.41	0.66	0.71
11	1.01	1.92	1.71	0.77	0.57	0.45	0.80	5.36	0.66	0.41	0.63	0.71
12	1.01	1.84	1.63	0.76	0.57	0.45	1.08	5.09	0.87	0.40	0.61	0.69
13	0.96	1.75	1.55	0.76	0.56	0.44	1.41	4.64	0.92	0.43	0.58	0.66
14	0.89	1.66	1.49	0.75	0.56	0.44	1.45	4.22	0.86	0.43	0.56	0.91
15	0.90	1.60	1.42	0.74	0.55	0.44	1.33	3.84	0.81	0.42	0.54	0.97
16	0.86	1.72	1.37	0.73	0.55	0.43	1.22	3.49	0.77	0.42	1.17	0.91
17	0.81	1.73	1.32	0.72	0.55	0.43	1.11	3.18	0.73	0.41	1.35	0.87
18	0.76	1.66	1.27	0.72	0.54	0.43	1.16	2.90	0.70	0.40	1.28	0.83
19	0.71	1.59	1.23	0.71	0.54	0.42	1.47	2.65	0.67	0.40	1.29	0.79
20	0.67	1.54	1.19	0.70	0.53	0.42	1.66	2.42	0.64	0.40	1.23	0.80
21	0.63	1.50	1.15	0.69	0.53	0.42	1.58	2.22	0.61	0.39	1.15	0.83
22	0.60	1.46	1.12	0.69	0.52	0.41	1.44	2.04	0.59	0.63	1.07	0.81
23	0.57	1.42	1.09	0.68	0.52	0.41	1.32	1.87	0.57	0.71	1.34	0.77
24	0.54	1.39	1.06	0.67	0.51	0.40	1.21	1.72	0.55	0.67	1.38	0.74
25	0.52	1.37	1.03	0.67	0.51	0.40	1.15	1.59	0.53	0.64	1.29	0.70
26	0.50	1.34	1.01	0.66	0.50	0.40	1.10	1.47	0.52	0.76	1.20	0.68
27	0.48	1.32	0.98	0.66	0.50	0.39	1.07	1.36	0.52	0.78	1.32	0.75
28	0.46	1.31	0.96	0.65	0.50	0.39	1.03	1.26	0.51	0.74	1.32	0.76
29	0.44	1.29	0.94	0.64	0.0	0.39	0.96	1.17	0.52	0.78	1.23	0.72
30	0.43	1.28	0.93	0.64	0.0	0.38	0.87	1.09	0.51	0.77	1.15	0.75
31	0.41	0.0	0.91	0.63	0.0	0.38	0.0	1.02	0.0	0.73	1.08	0.0
TOT	22.98	41.94	48.82	22.99	15.64	13.47	27.70	73.25	21.08	16.21	30.81	23.79

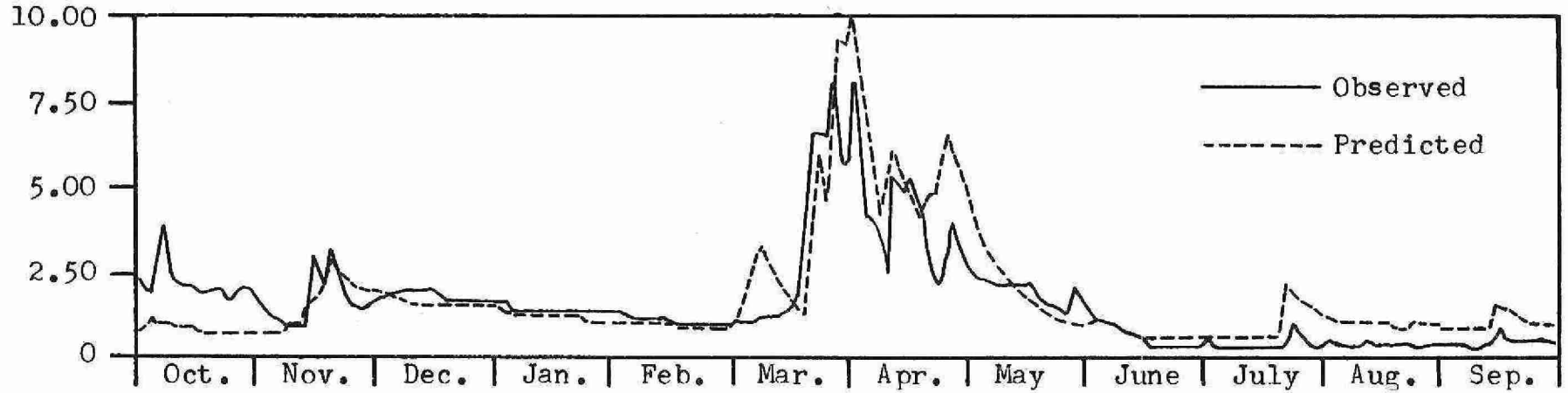
TOTAL FOR WATER YEAR = 358.66



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - JERRY LAKE #3

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.75	0.53	1.78	1.06	0.80	0.63	8.94	3.93	0.93	0.54	1.46	0.70
2	0.71	0.55	1.73	1.05	0.80	0.63	9.95	3.58	0.87	0.52	1.35	0.68
3	1.06	0.57	1.68	1.04	0.79	1.32	9.77	3.32	0.82	0.50	1.26	0.66
4	1.15	0.59	1.63	1.03	0.78	2.96	8.88	3.05	0.78	0.49	1.17	0.63
5	1.09	0.61	1.59	1.02	0.78	3.35	8.02	2.78	0.74	0.48	1.10	0.61
6	1.02	0.64	1.55	1.01	0.77	3.12	7.25	2.54	0.71	0.47	1.03	0.60
7	0.96	0.66	1.52	1.00	0.76	2.86	6.56	2.32	0.67	0.46	1.10	0.58
8	0.91	0.68	1.48	0.99	0.76	2.63	5.93	2.13	0.64	0.45	1.08	0.56
9	0.86	0.71	1.45	0.98	0.75	2.42	5.37	1.95	0.62	0.44	1.24	0.55
10	0.82	0.73	1.42	0.97	0.74	2.24	4.86	1.80	0.69	0.43	1.24	0.55
11	0.78	0.75	1.39	0.96	0.74	2.07	4.40	1.83	0.69	0.42	1.16	0.55
12	0.77	0.78	1.37	0.95	0.73	1.91	4.03	1.87	0.66	0.42	1.09	0.53
13	0.75	1.44	1.35	0.95	0.72	1.78	5.67	1.76	0.63	0.41	1.03	1.43
14	0.71	1.67	1.32	0.94	0.72	1.65	6.10	1.63	0.61	0.42	0.97	1.68
15	0.69	1.62	1.30	0.93	0.71	1.54	5.90	1.51	0.59	0.42	0.92	1.56
16	0.66	1.57	1.28	0.92	0.71	1.44	5.51	1.39	0.57	0.41	0.87	1.45
17	0.64	2.45	1.26	0.91	0.70	1.34	5.06	1.29	0.55	0.40	0.82	1.35
18	0.62	2.72	1.25	0.91	0.69	1.34	4.65	1.20	0.53	0.40	0.78	1.26
19	0.60	2.58	1.23	0.90	0.69	1.29	4.24	1.12	0.52	0.40	0.74	1.17
20	0.59	2.46	1.21	0.89	0.68	1.58	3.94	1.04	0.50	0.39	0.71	1.11
21	0.57	2.35	1.20	0.88	0.68	1.95	4.62	0.98	0.49	0.39	0.68	1.04
22	0.56	2.25	1.18	0.87	0.67	2.31	4.77	0.92	0.48	0.38	0.65	0.98
23	0.54	2.17	1.17	0.87	0.67	2.86	4.50	0.86	0.47	0.38	0.66	0.93
24	0.53	2.09	1.15	0.86	0.66	5.55	5.70	0.81	0.46	0.38	0.95	0.88
25	0.57	2.03	1.14	0.85	0.65	6.00	6.52	0.77	0.45	1.91	1.02	0.83
26	0.58	1.97	1.13	0.84	0.65	5.45	6.37	1.07	0.46	2.35	0.96	0.79
27	0.59	1.92	1.12	0.84	0.64	4.95	5.82	1.14	0.45	2.16	0.90	0.76
28	0.59	1.88	1.10	0.83	0.64	4.50	5.27	1.07	0.44	1.99	0.86	0.73
29	0.57	1.84	1.09	0.82	0.0	5.55	4.77	1.08	0.44	1.83	0.81	0.70
30	0.56	1.81	1.08	0.82	0.0	7.70	4.34	1.05	0.52	1.69	0.77	0.67
31	0.54	0.0	1.07	0.81	0.0	9.28	0.0	0.99	0.0	1.56	0.74	0.0
TOT	22.35	44.64	41.23	28.69	20.07	94.20	177.72	52.80	17.98	23.89	30.12	26.51

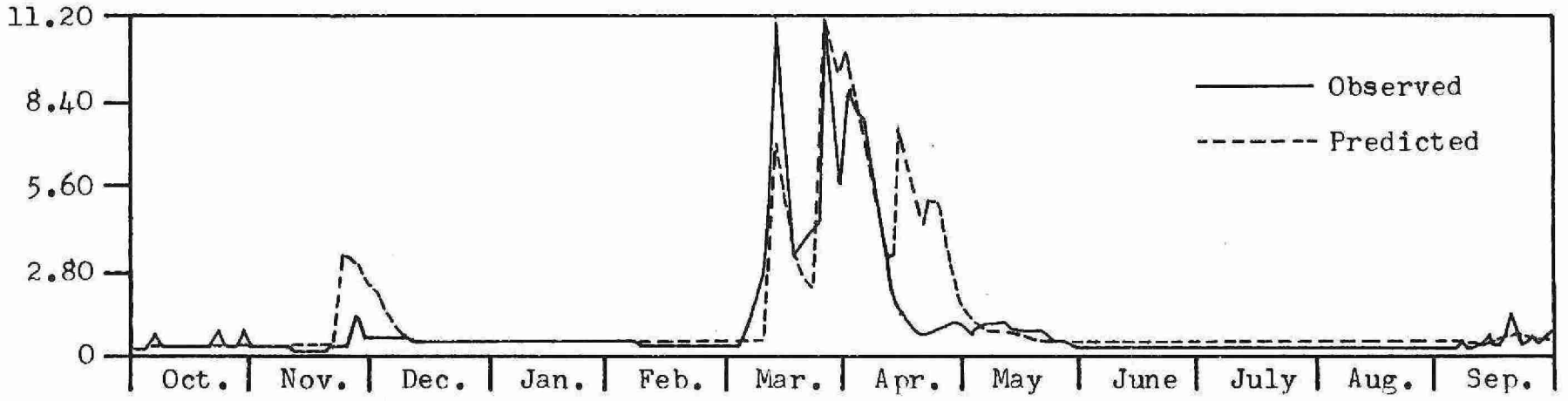
TOTAL FOR WATER YEAR = 580.18



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - JERRY LAKE #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.24	0.18	2.20	0.25	0.19	0.17	9.31	1.50	0.30	0.39	0.56	0.44
2	0.22	0.18	1.94	0.25	0.19	0.17	10.25	1.35	0.30	0.37	0.52	0.42
3	0.21	0.17	1.72	0.24	0.19	0.17	9.46	1.21	0.30	0.36	0.48	0.39
4	0.19	0.17	1.53	0.24	0.19	0.17	8.24	1.09	0.29	0.34	0.52	0.37
5	0.18	0.18	1.36	0.23	0.19	0.17	7.18	0.98	0.29	0.42	0.51	0.36
6	0.43	0.18	1.21	0.23	0.19	0.16	6.25	0.89	0.28	0.43	0.47	0.34
7	0.46	0.17	1.09	0.23	0.19	0.16	5.45	0.81	0.28	0.41	0.44	0.33
8	0.42	0.17	0.98	0.23	0.19	0.16	4.75	0.74	0.28	0.39	0.44	0.32
9	0.38	0.17	0.88	0.22	0.19	0.16	4.14	0.68	0.27	0.37	0.42	0.31
10	0.34	0.16	0.80	0.22	0.19	0.26	3.63	0.63	0.27	0.35	0.40	0.34
11	0.31	0.16	0.72	0.22	0.18	0.90	3.63	0.58	0.27	0.34	0.38	0.34
12	0.29	0.16	0.66	0.22	0.18	3.35	5.99	0.54	0.27	0.33	0.36	0.33
13	0.26	0.16	0.61	0.22	0.18	4.07	7.46	0.51	0.27	0.32	0.35	0.33
14	0.24	0.16	0.56	0.22	0.18	4.49	6.99	0.48	0.26	0.31	0.33	0.33
15	0.23	0.16	0.52	0.21	0.18	6.17	6.18	0.45	0.26	0.30	0.32	0.32
16	0.22	0.39	0.48	0.21	0.18	6.99	5.50	0.43	0.27	0.29	0.32	0.32
17	0.20	0.43	0.45	0.21	0.18	6.37	5.00	0.41	0.27	0.28	0.31	0.31
18	0.19	0.47	0.42	0.21	0.18	5.56	4.56	0.39	0.28	0.28	0.30	0.30
19	0.18	0.46	0.39	0.21	0.18	4.85	4.33	0.37	0.28	0.27	0.45	0.29
20	0.17	0.42	0.37	0.21	0.18	4.23	5.19	0.36	0.28	0.27	0.47	0.68
21	0.16	0.39	0.35	0.21	0.18	3.70	5.15	0.35	0.27	0.27	0.60	0.73
22	0.16	0.37	0.34	0.20	0.17	3.23	4.58	0.34	0.27	0.26	0.60	0.67
23	0.15	0.35	0.32	0.20	0.17	2.83	4.02	0.33	0.27	0.26	0.56	0.62
24	0.14	0.33	0.31	0.20	0.17	2.48	3.53	0.32	0.26	0.27	0.52	0.57
25	0.14	0.31	0.30	0.20	0.17	2.17	3.11	0.31	0.26	0.27	0.48	0.53
26	0.14	3.06	0.29	0.20	0.17	1.91	2.74	0.31	0.26	0.27	0.45	0.60
27	0.13	3.58	0.28	0.20	0.17	2.03	2.41	0.30	0.26	0.26	0.42	0.64
28	0.13	3.20	0.27	0.20	0.17	5.60	2.13	0.30	0.41	0.26	0.40	0.61
29	0.13	2.82	0.27	0.20	0.0	7.44	1.88	0.29	0.44	0.26	0.49	0.65
30	0.19	2.48	0.26	0.20	0.0	11.10	1.67	0.29	0.42	0.25	0.49	0.63
31	0.19	0.0	0.25	0.19	0.0	10.70	0.0	0.28	0.0	0.52	0.47	0.0
TOT	7.03	21.59	22.12	6.68	5.07	101.91	154.71	17.78	8.68	9.98	13.86	13.44

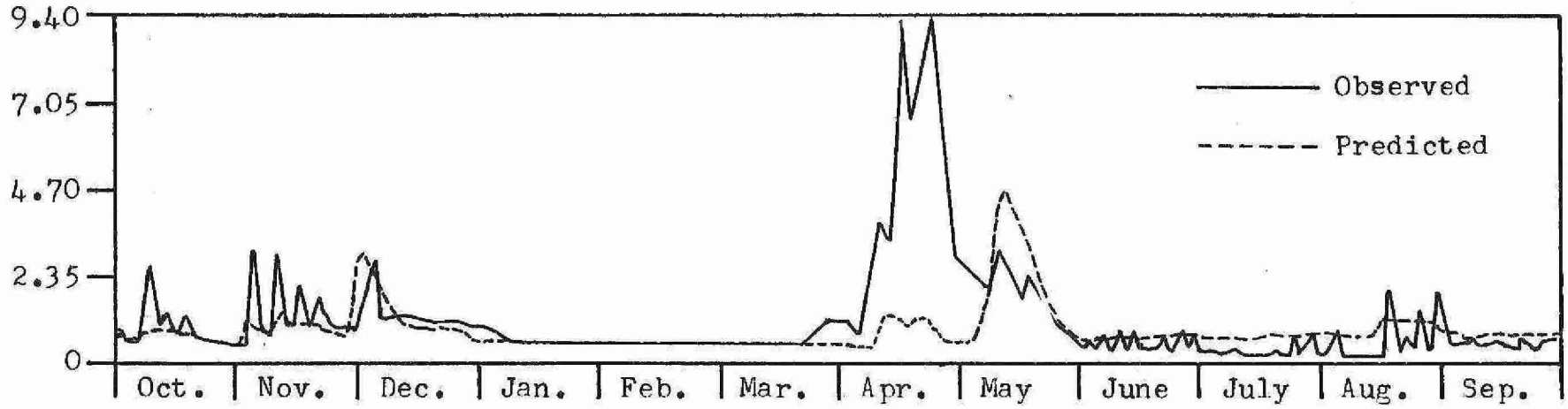
TOTAL FOR WATER YEAR = 382.84



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - JERRY LAKE #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.71	0.31	2.58	0.49	0.39	0.34	0.29	0.58	0.63	0.44	0.59	0.76
2	0.69	0.31	2.79	0.48	0.39	0.34	0.29	0.53	0.60	0.43	0.81	0.71
3	0.64	1.04	2.49	0.48	0.39	0.34	0.28	0.49	0.57	0.42	0.82	0.67
4	0.59	1.16	2.23	0.47	0.39	0.34	0.28	0.46	0.58	0.41	0.76	0.63
5	0.55	1.05	2.01	0.47	0.39	0.34	0.27	0.49	0.56	0.41	0.71	0.60
6	0.51	0.96	1.81	0.46	0.38	0.33	0.27	1.15	0.54	0.40	0.67	0.58
7	0.48	0.91	1.64	0.46	0.38	0.33	0.26	1.30	0.58	0.40	0.63	0.55
8	0.80	0.84	1.49	0.45	0.38	0.33	0.26	2.68	0.58	0.39	0.59	0.53
9	0.83	0.79	1.36	0.45	0.38	0.33	0.25	4.13	0.55	0.39	0.56	0.52
10	0.76	1.33	1.24	0.45	0.38	0.33	0.25	4.68	0.53	0.38	0.54	0.54
11	0.76	1.44	1.15	0.44	0.37	0.33	0.79	4.83	0.51	0.38	0.51	0.55
12	0.76	1.33	1.06	0.44	0.37	0.32	0.98	4.43	0.74	0.38	0.49	0.53
13	0.70	1.22	0.98	0.44	0.37	0.32	1.28	3.91	0.76	0.40	0.47	0.51
14	0.65	1.12	0.92	0.43	0.37	0.32	1.25	3.45	0.71	0.40	0.46	0.76
15	0.66	1.05	0.86	0.43	0.37	0.32	1.12	3.05	0.67	0.40	0.45	0.78
16	0.62	1.15	0.81	0.43	0.36	0.32	1.00	2.71	0.63	0.39	1.06	0.73
17	0.58	1.11	0.77	0.43	0.36	0.32	0.90	2.40	0.60	0.39	1.15	0.69
18	0.54	1.03	0.73	0.42	0.36	0.31	0.94	2.14	0.57	0.38	1.08	0.65
19	0.50	0.96	0.70	0.42	0.36	0.31	1.22	1.91	0.55	0.38	1.07	0.62
20	0.47	0.90	0.67	0.42	0.36	0.31	1.35	1.71	0.52	0.38	1.00	0.63
21	0.45	0.86	0.64	0.42	0.36	0.31	1.25	1.54	0.51	0.37	0.92	0.66
22	0.43	0.82	0.62	0.41	0.35	0.31	1.12	1.39	0.49	0.61	0.85	0.64
23	0.41	0.78	0.60	0.41	0.35	0.31	1.00	1.26	0.47	0.64	1.11	0.60
24	0.39	0.75	0.58	0.41	0.35	0.31	0.91	1.14	0.46	0.61	1.11	0.57
25	0.37	0.72	0.56	0.41	0.35	0.30	0.86	1.04	0.45	0.57	1.02	0.55
26	0.36	0.70	0.55	0.41	0.35	0.30	0.82	0.96	0.44	0.69	0.93	0.53
27	0.35	0.68	0.54	0.40	0.35	0.30	0.79	0.88	0.45	0.69	1.05	0.61
28	0.34	0.66	0.53	0.40	0.34	0.30	0.77	0.82	0.44	0.64	1.03	0.61
29	0.33	0.65	0.52	0.40	0.0	0.30	0.70	0.76	0.46	0.68	0.95	0.58
30	0.32	0.64	0.51	0.40	0.0	0.30	0.64	0.71	0.45	0.66	0.88	0.60
31	0.31	0.0	0.50	0.40	0.0	0.30	0.0	0.67	0.0	0.62	0.81	0.0
TOT	16.87	27.27	34.42	13.44	10.30	9.86	22.39	58.21	16.59	14.73	25.08	18.49

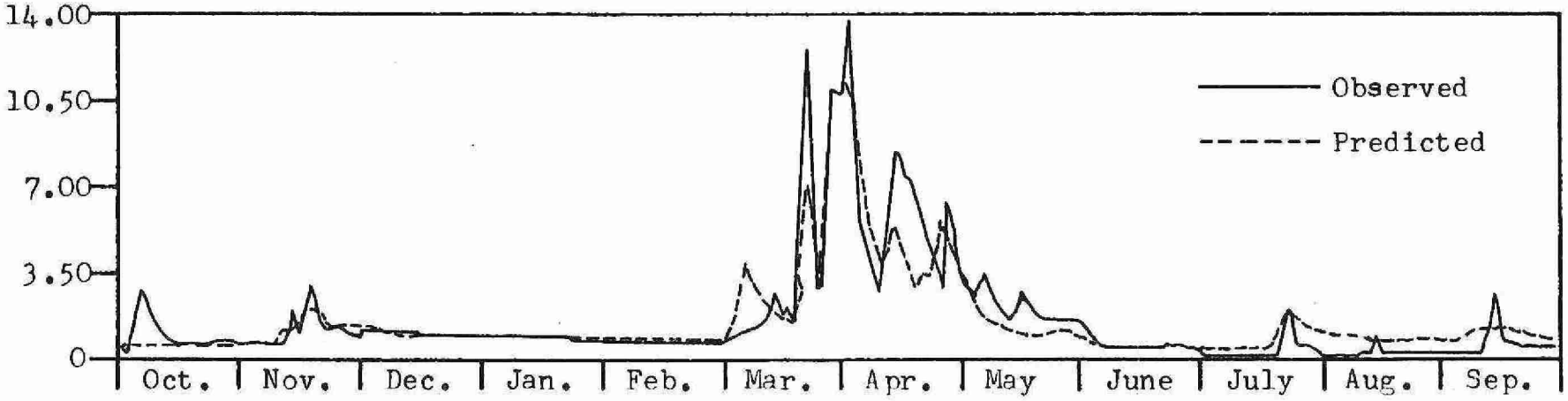
TOTAL FOR WATER YEAR = 267.64



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - JERRY LAKE #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.59	0.44	0.94	0.60	0.51	0.44	10.00	2.91	0.78	0.54	1.24	0.60
2	0.56	0.44	0.90	0.59	0.51	0.44	11.31	2.58	0.74	0.52	1.14	0.58
3	0.90	0.44	0.87	0.59	0.51	1.47	10.64	2.36	0.70	0.51	1.05	0.56
4	0.94	0.44	0.84	0.59	0.50	3.68	9.32	2.13	0.66	0.49	0.97	0.55
5	0.88	0.45	0.82	0.58	0.50	3.93	8.14	1.91	0.63	0.48	0.90	0.53
6	0.81	0.45	0.80	0.58	0.50	3.52	7.12	1.72	0.61	0.47	0.84	0.52
7	0.76	0.45	0.78	0.58	0.50	3.11	6.22	1.55	0.58	0.46	0.91	0.51
8	0.71	0.46	0.76	0.58	0.49	2.76	5.45	1.40	0.56	0.46	0.89	0.50
9	0.67	0.46	0.75	0.57	0.49	2.45	4.77	1.28	0.55	0.45	1.05	0.49
10	0.63	0.47	0.73	0.57	0.49	2.18	4.19	1.17	0.63	0.44	1.03	0.50
11	0.60	0.48	0.72	0.57	0.49	1.95	3.68	1.26	0.63	0.44	0.96	0.50
12	0.60	0.48	0.71	0.56	0.48	1.75	3.27	1.32	0.61	0.43	0.89	0.49
13	0.58	1.15	0.70	0.56	0.48	1.57	5.22	1.23	0.58	0.43	0.84	1.41
14	0.55	1.27	0.69	0.56	0.48	1.42	5.41	1.14	0.56	0.43	0.79	1.54
15	0.53	1.18	0.68	0.56	0.48	1.29	5.10	1.05	0.55	0.43	0.75	1.40
16	0.51	1.10	0.67	0.55	0.47	1.17	4.60	0.97	0.53	0.43	0.71	1.28
17	0.50	2.03	0.67	0.55	0.47	1.07	4.11	0.90	0.52	0.42	0.67	1.17
18	0.48	2.13	0.66	0.55	0.47	1.09	3.67	0.84	0.50	0.42	0.64	1.07
19	0.47	1.94	0.65	0.54	0.47	1.03	3.26	0.78	0.49	0.42	0.61	0.99
20	0.46	1.77	0.65	0.54	0.46	1.48	2.96	0.74	0.48	0.41	0.59	0.93
21	0.45	1.63	0.64	0.54	0.46	1.96	3.74	0.70	0.48	0.41	0.57	0.87
22	0.44	1.50	0.64	0.54	0.46	2.43	3.77	0.66	0.47	0.41	0.55	0.81
23	0.44	1.40	0.63	0.53	0.46	3.14	3.49	0.63	0.47	0.41	0.57	0.76
24	0.43	1.30	0.63	0.53	0.46	6.86	4.89	0.61	0.46	0.40	0.85	0.72
25	0.47	1.22	0.62	0.53	0.45	6.96	5.59	0.59	0.45	2.03	0.88	0.69
26	0.47	1.16	0.62	0.53	0.45	6.10	5.31	0.93	0.46	2.27	0.82	0.65
27	0.49	1.10	0.62	0.52	0.45	5.35	4.72	0.97	0.46	2.04	0.77	0.63
28	0.48	1.05	0.61	0.52	0.45	4.70	4.17	0.90	0.45	1.83	0.73	0.60
29	0.47	1.01	0.61	0.52	0.0	6.20	3.68	0.93	0.45	1.65	0.69	0.58
30	0.46	0.97	0.60	0.52	0.0	9.00	3.28	0.89	0.53	1.49	0.66	0.56
31	0.45	0.0	0.60	0.51	0.0	10.83	0.0	0.83	0.0	1.35	0.63	0.0
101	17.80	30.35	21.82	17.15	13.38	101.36	161.08	37.85	16.58	23.38	25.17	23.02

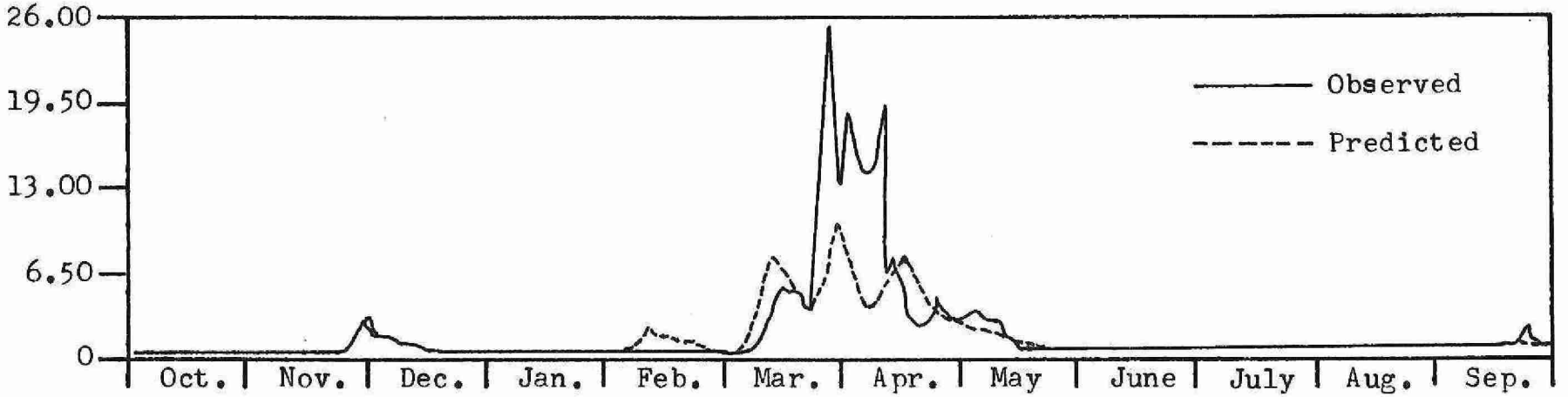
TOTAL FOR WATER YEAR = 488.94



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - DICKIE LAKE #5

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.67	0.25	2.55	0.66	0.44	0.64	9.47	1.54	0.26	0.18	0.59	0.31
2	0.61	0.26	2.37	0.65	0.43	0.61	8.59	1.40	0.50	0.17	0.54	0.29
3	0.56	0.27	2.21	0.63	0.43	0.58	7.82	1.27	0.46	0.16	0.50	0.27
4	0.52	0.29	2.07	0.62	0.42	0.55	7.16	1.16	0.42	0.15	0.51	0.25
5	0.48	0.30	1.93	0.61	0.42	0.53	6.63	1.05	0.39	0.25	0.64	0.24
6	0.61	0.32	1.81	0.60	0.42	0.51	6.30	0.96	0.36	0.45	0.73	0.22
7	0.91	0.35	1.70	0.59	0.41	0.49	5.71	0.88	0.33	0.42	0.67	0.21
8	0.83	0.36	1.60	0.58	0.41	0.47	5.18	0.80	0.30	0.39	0.62	0.20
9	0.76	0.37	1.51	0.57	0.40	0.52	4.70	0.73	0.28	0.36	0.60	0.20
10	0.70	0.39	1.43	0.56	0.40	0.86	4.28	0.67	0.26	0.33	0.62	0.22
11	0.64	0.40	1.36	0.56	0.40	1.43	4.17	0.61	0.24	0.31	0.57	0.23
12	0.59	0.42	1.29	0.55	0.92	3.02	5.42	0.56	0.23	0.29	0.52	0.22
13	0.54	0.43	1.22	0.54	1.92	6.23	7.78	0.51	0.21	0.27	0.48	0.21
14	0.50	0.45	1.17	0.53	1.77	7.74	8.34	0.47	0.20	0.25	0.45	0.21
15	0.47	0.47	1.11	0.53	1.63	8.50	7.56	0.43	0.19	0.23	0.41	0.19
16	0.44	0.48	1.07	0.52	1.51	9.23	6.85	0.40	0.18	0.22	0.41	0.19
17	0.41	0.50	1.02	0.51	1.40	8.38	6.21	0.36	0.18	0.20	0.44	0.20
18	0.38	0.59	0.98	0.51	1.30	7.61	5.63	0.34	0.17	0.19	0.41	0.19
19	0.35	0.75	0.95	0.50	1.21	6.91	5.10	0.31	0.16	0.18	0.39	0.18
20	0.33	0.75	0.91	0.50	1.12	6.27	4.62	0.29	0.15	0.17	0.38	0.42
21	0.36	0.75	0.88	0.49	1.05	5.70	4.20	0.27	0.14	0.16	0.45	0.89
22	0.47	0.75	0.85	0.49	0.98	5.18	3.84	0.25	0.14	0.15	0.60	0.81
23	0.48	0.75	0.83	0.48	0.92	4.71	3.47	0.23	0.13	0.15	0.55	0.75
24	0.44	0.76	0.80	0.48	0.86	4.28	3.15	0.21	0.12	0.16	0.51	0.69
25	0.41	0.76	0.78	0.47	0.81	3.90	2.85	0.20	0.12	0.19	0.47	0.66
26	0.38	0.77	0.76	0.47	0.76	3.55	2.57	0.19	0.11	0.18	0.43	0.86
27	0.35	1.57	0.74	0.46	0.72	3.35	2.33	0.17	0.11	0.17	0.40	1.16
28	0.33	3.12	0.72	0.46	0.68	4.36	2.10	0.17	0.14	0.16	0.37	1.07
29	0.31	2.91	0.70	0.45	0.0	6.60	1.90	0.16	0.20	0.15	0.35	1.02
30	0.29	2.72	0.69	0.45	0.0	8.38	1.71	0.15	0.19	0.14	0.33	0.99
31	0.27	0.0	0.67	0.44	0.0	10.45	0.0	0.14	0.0	0.29	0.31	0.0
TOT	15.43	23.27	38.68	16.46	24.11	131.54	155.64	16.85	6.85	7.08	15.25	13.55

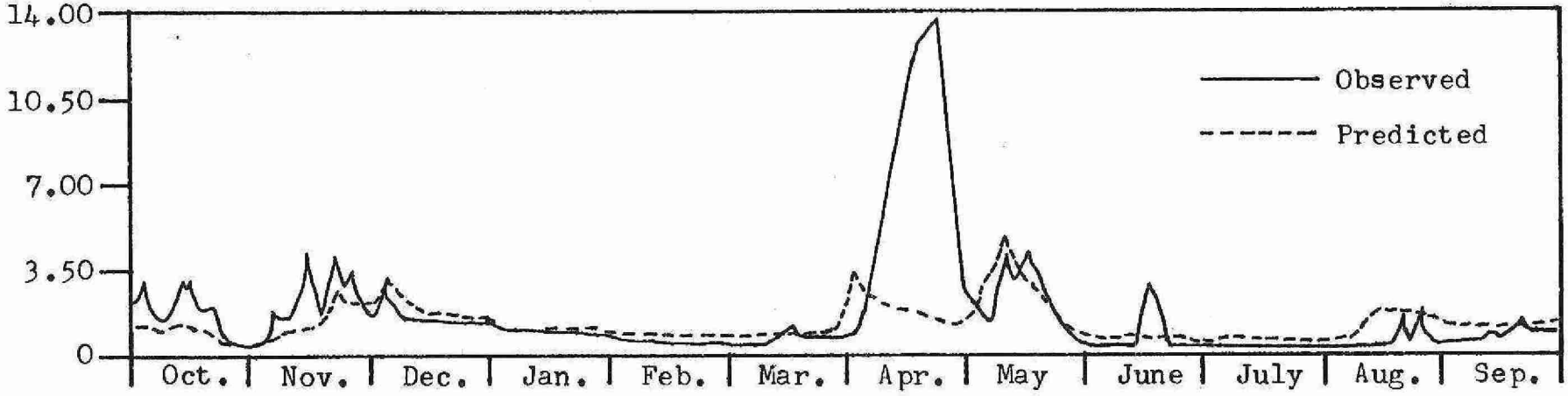
TOTAL FOR WATER YEAR = 464.72



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - DICKIE LAKE #5

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	1.02	0.27	2.24	0.98	0.66	0.51	2.24	0.82	0.66	0.40	0.57	1.35
2	1.16	0.29	3.30	0.96	0.65	0.50	3.67	0.76	0.61	0.37	0.61	1.25
3	1.06	0.51	3.09	0.94	0.65	0.50	3.34	0.71	0.56	0.35	0.72	1.16
4	0.97	0.93	2.89	0.93	0.64	0.49	3.04	0.66	0.55	0.33	0.67	1.07
5	0.89	0.90	2.71	0.91	0.63	0.49	2.79	0.64	0.56	0.32	0.62	0.99
6	0.82	0.87	2.55	0.90	0.63	0.48	2.57	1.09	0.52	0.30	0.58	0.92
7	0.76	0.87	2.40	0.88	0.62	0.48	2.35	1.97	0.51	0.29	0.54	0.85
8	0.84	0.89	2.27	0.87	0.62	0.47	2.14	2.63	0.53	0.27	0.50	0.79
9	1.07	0.87	2.15	0.86	0.61	0.47	1.95	4.13	0.49	0.26	0.47	0.75
10	0.99	0.90	2.03	0.85	0.60	0.46	1.78	4.72	0.46	0.25	0.44	0.78
11	0.94	0.97	1.93	0.83	0.60	0.46	1.81	4.28	0.43	0.24	0.41	0.87
12	0.95	0.96	1.84	0.82	0.59	0.46	2.07	3.91	0.69	0.23	0.39	0.86
13	0.89	0.95	1.75	0.81	0.59	0.45	1.97	3.60	1.22	0.23	0.37	0.80
14	0.82	0.95	1.68	0.80	0.58	0.45	1.95	3.29	1.12	0.24	0.35	0.86
15	0.79	0.94	1.61	0.79	0.58	0.44	1.78	3.01	1.03	0.23	0.70	1.04
16	0.81	1.48	1.54	0.78	0.57	0.44	1.62	2.73	0.94	0.23	1.62	0.97
17	0.75	2.60	1.48	0.77	0.57	0.44	1.48	2.49	0.87	0.22	1.91	0.91
18	0.69	2.48	1.43	0.76	0.56	0.43	1.41	2.26	0.80	0.21	1.76	0.85
19	0.64	2.35	1.38	0.76	0.55	0.43	1.58	2.06	0.74	0.21	1.78	0.80
20	0.59	2.23	1.33	0.75	0.55	0.42	1.75	1.88	0.68	0.23	1.97	0.92
21	0.55	2.16	1.29	0.74	0.54	0.42	1.60	1.71	0.63	0.27	1.80	1.19
22	0.51	2.12	1.25	0.73	0.54	0.42	1.45	1.56	0.58	0.31	1.64	1.10
23	0.47	2.04	1.21	0.72	0.53	0.41	1.32	1.43	0.54	0.40	1.79	1.02
24	0.44	1.96	1.18	0.72	0.53	0.41	1.20	1.30	0.50	0.38	2.22	0.95
25	0.41	1.90	1.15	0.71	0.52	0.40	1.13	1.19	0.47	0.36	2.04	0.88
26	0.38	1.84	1.12	0.70	0.52	0.40	1.09	1.09	0.44	0.36	1.86	0.82
27	0.36	1.79	1.09	0.69	0.51	0.40	1.06	1.00	0.43	0.38	1.80	0.80
28	0.34	1.75	1.06	0.69	0.51	0.39	1.03	0.92	0.43	0.36	1.86	0.82
29	0.32	1.71	1.04	0.68	0.0	0.39	0.99	0.84	0.42	0.46	1.75	0.77
30	0.30	1.68	1.02	0.67	0.0	0.39	0.91	0.78	0.42	0.66	1.61	0.78
31	0.29	0.0	1.00	0.67	0.0	0.74	0.0	0.72	0.0	0.61	1.47	0.0
TOT	21.85	42.14	53.99	24.67	16.26	14.03	55.09	60.18	18.82	9.97	36.81	27.91

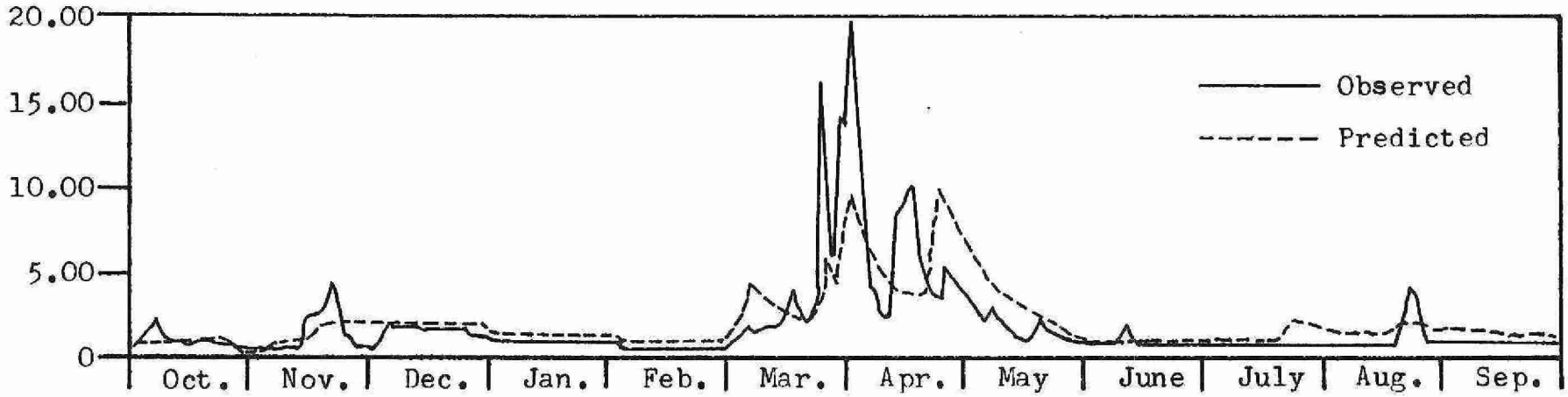
TOTAL FOR WATER YEAR = 381.73



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - DICKIE LAKE #5

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.83	0.47	2.15	1.39	1.03	0.80	8.20	7.32	0.59	0.68	1.49	1.12
2	0.77	0.51	2.10	1.37	1.02	0.79	8.34	6.65	0.56	0.65	1.38	1.21
3	0.95	0.55	2.06	1.36	1.01	1.07	9.35	6.09	0.52	0.61	1.27	1.46
4	1.36	0.59	2.01	1.35	1.00	2.47	8.49	5.62	0.49	0.57	1.17	1.34
5	1.26	0.63	1.98	1.33	0.99	4.62	7.71	5.11	0.47	0.54	1.08	1.24
6	1.18	0.67	1.94	1.32	0.99	5.44	7.00	4.65	0.44	0.51	1.00	1.15
7	1.14	0.72	1.90	1.31	0.98	4.99	6.36	4.24	0.42	0.48	1.01	1.07
8	1.23	0.76	1.87	1.30	0.97	4.58	5.78	3.86	0.40	0.45	1.10	0.99
9	1.41	0.81	1.84	1.28	0.96	4.21	5.25	3.51	0.38	0.43	1.03	0.92
10	1.30	0.85	1.81	1.27	0.95	3.87	4.77	3.20	0.53	0.41	0.96	0.87
11	1.20	0.93	1.79	1.26	0.94	3.56	4.34	2.92	0.83	0.39	0.89	0.83
12	1.11	1.04	1.76	1.25	0.93	3.29	3.95	2.76	0.77	0.38	0.83	0.78
13	1.04	1.08	1.73	1.23	0.92	3.04	4.01	2.66	0.72	0.36	0.77	1.08
14	0.96	1.12	1.71	1.22	0.91	2.81	4.63	2.43	0.67	0.36	0.72	1.71
15	0.89	1.17	1.69	1.21	0.91	2.60	4.70	2.24	0.63	0.37	0.68	1.57
16	0.83	1.23	1.66	1.20	0.90	2.41	4.79	2.04	0.59	0.36	0.64	1.45
17	0.78	1.64	1.64	1.19	0.89	2.24	4.44	1.87	0.55	0.34	0.60	1.34
18	0.73	2.41	1.62	1.18	0.88	2.09	4.14	1.71	0.52	0.33	0.57	1.24
19	0.69	2.35	1.60	1.17	0.87	1.95	3.80	1.57	0.49	0.32	0.53	1.14
20	0.66	2.30	1.58	1.15	0.87	1.94	3.50	1.44	0.47	0.31	0.51	1.06
21	0.62	2.26	1.56	1.14	0.86	2.22	3.93	1.32	0.45	0.30	0.48	1.00
22	0.59	2.22	1.55	1.13	0.85	2.58	5.70	1.22	0.44	0.29	0.46	0.95
23	0.55	2.20	1.53	1.12	0.84	3.05	6.78	1.12	0.42	0.29	0.50	0.88
24	0.52	2.18	1.51	1.11	0.83	4.26	7.08	1.04	0.40	0.28	1.09	0.83
25	0.54	2.16	1.50	1.10	0.83	5.62	9.06	0.96	0.38	1.04	1.97	0.77
26	0.59	2.15	1.48	1.09	0.82	5.14	10.37	0.89	0.37	2.51	1.81	0.73
27	0.58	2.14	1.46	1.08	0.81	4.70	9.67	0.83	0.36	2.30	1.66	0.68
28	0.58	2.14	1.45	1.07	0.80	4.31	9.00	0.77	0.34	2.10	1.53	0.64
29	0.55	2.14	1.43	1.06	0.0	4.67	8.77	0.72	0.33	1.93	1.41	0.61
30	0.52	2.14	1.42	1.05	0.0	6.16	8.11	0.68	0.44	1.77	1.30	0.58
31	0.50	0.0	1.40	1.04	0.0	7.29	0.0	0.63	0.0	1.62	1.20	0.0
TOT	26.45	43.54	52.73	37.35	25.56	108.79	192.01	82.05	15.00	23.27	31.65	31.24

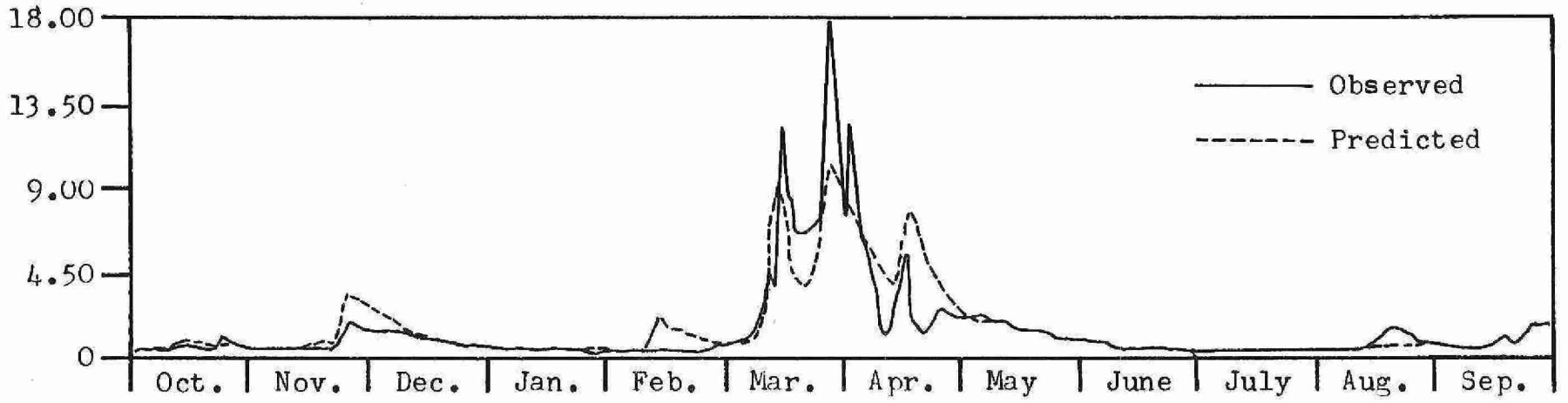
TOTAL FOR WATER YEAR = 669.65



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - DICKIE LAKE #6

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.53	0.21	2.35	0.53	0.38	0.60	9.52	1.19	0.38	0.18	0.57	0.27
2	0.48	0.21	2.16	0.52	0.38	0.56	8.51	1.08	0.45	0.17	0.52	0.26
3	0.44	0.22	1.98	0.51	0.38	0.53	7.69	0.97	0.41	0.16	0.48	0.24
4	0.41	0.23	1.83	0.51	0.38	0.51	6.92	0.87	0.38	0.15	0.53	0.23
5	0.37	0.24	1.69	0.50	0.37	0.48	6.50	0.79	0.34	0.37	0.66	0.21
6	0.72	0.26	1.57	0.49	0.37	0.46	5.95	0.72	0.32	0.43	0.65	0.20
7	0.80	0.28	1.46	0.49	0.37	0.44	5.33	0.65	0.29	0.40	0.59	0.19
8	0.72	0.29	1.36	0.48	0.36	0.43	4.77	0.59	0.27	0.37	0.54	0.18
9	0.66	0.30	1.27	0.47	0.36	0.58	4.27	0.53	0.25	0.34	0.56	0.20
10	0.60	0.31	1.19	0.47	0.36	1.15	3.86	0.49	0.23	0.31	0.53	0.22
11	0.54	0.32	1.12	0.46	0.36	1.73	4.04	0.44	0.22	0.29	0.49	0.21
12	0.50	0.33	1.06	0.46	1.74	4.97	6.43	0.40	0.20	0.27	0.45	0.20
13	0.46	0.34	1.00	0.45	2.10	7.78	8.18	0.37	0.19	0.25	0.41	0.20
14	0.42	0.35	0.95	0.45	1.91	8.63	7.90	0.34	0.18	0.23	0.38	0.19
15	0.39	0.36	0.90	0.44	1.74	9.93	7.07	0.31	0.17	0.22	0.35	0.18
16	0.36	0.37	0.86	0.44	1.59	9.59	6.33	0.29	0.17	0.20	0.39	0.18
17	0.33	0.39	0.82	0.44	1.45	8.58	5.67	0.27	0.16	0.19	0.38	0.17
18	0.31	0.54	0.78	0.43	1.33	7.69	5.08	0.25	0.15	0.18	0.35	0.17
19	0.29	0.60	0.75	0.43	1.22	6.89	4.55	0.23	0.15	0.17	0.35	0.16
20	0.27	0.59	0.72	0.42	1.12	6.18	4.07	0.21	0.14	0.16	0.33	0.66
21	0.34	0.59	0.70	0.42	1.04	5.54	3.67	0.20	0.14	0.15	0.50	0.80
22	0.40	0.59	0.68	0.42	0.96	4.98	3.30	0.19	0.13	0.15	0.54	0.73
23	0.39	0.59	0.66	0.41	0.89	4.47	2.95	0.18	0.13	0.14	0.49	0.66
24	0.36	0.59	0.64	0.41	0.83	4.02	2.64	0.17	0.12	0.18	0.45	0.61
25	0.33	0.59	0.62	0.41	0.77	3.61	2.36	0.16	0.12	0.18	0.42	0.61
26	0.31	0.59	0.60	0.40	0.72	3.25	2.11	0.15	0.11	0.17	0.38	0.97
27	0.29	2.48	0.59	0.40	0.67	3.20	1.89	0.14	0.11	0.16	0.35	1.04
28	0.27	3.02	0.57	0.40	0.63	5.64	1.69	0.14	0.18	0.16	0.33	0.95
29	0.25	2.77	0.56	0.39	0.0	7.23	1.51	0.13	0.20	0.15	0.31	0.92
30	0.23	2.54	0.55	0.39	0.0	10.43	1.34	0.13	0.19	0.14	0.29	0.85
31	0.22	0.0	0.54	0.39	0.0	10.63	0.0	0.12	0.0	0.48	0.29	0.0
TOT	12.99	21.06	32.52	13.82	24.78	140.71	146.11	12.67	6.48	7.09	13.84	12.67

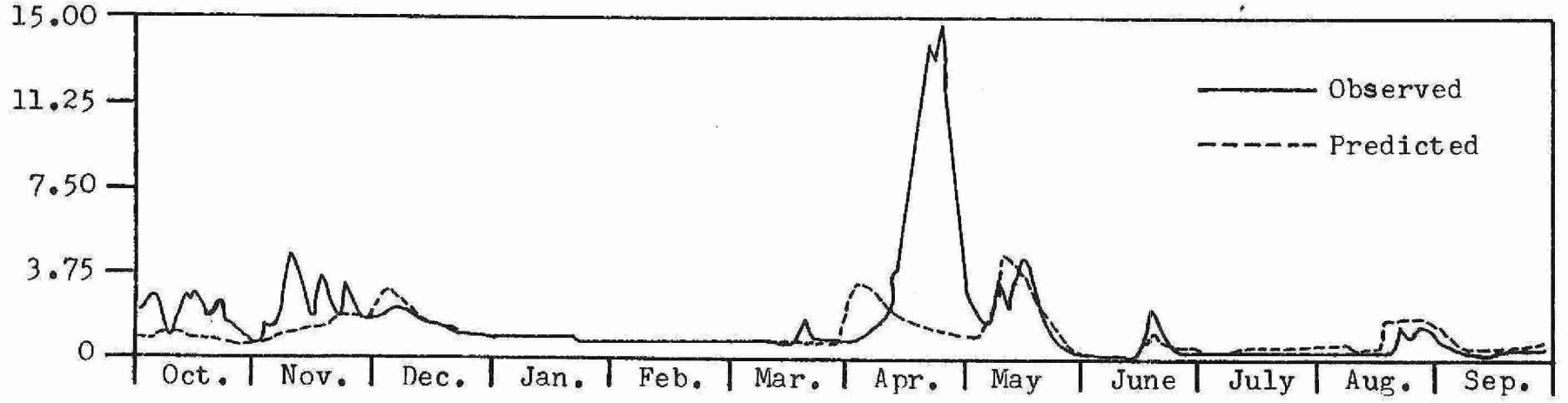
TOTAL FOR WATER YEAR = 444.74



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - DICKIE LAKE #6

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	1.00	0.24	2.78	0.82	0.60	0.49	3.51	0.70	0.55	0.37	0.55	1.19
2	0.99	0.25	3.11	0.81	0.60	0.48	3.90	0.66	0.51	0.35	0.67	1.10
3	0.90	0.70	2.87	0.80	0.59	0.48	3.51	0.61	0.47	0.33	0.69	1.01
4	0.82	0.85	2.66	0.79	0.59	0.48	3.16	0.56	0.49	0.31	0.63	0.93
5	0.74	0.81	2.46	0.77	0.58	0.47	2.88	0.59	0.48	0.30	0.58	0.86
6	0.68	0.77	2.29	0.76	0.58	0.47	2.61	1.52	0.44	0.28	0.54	0.79
7	0.62	0.78	2.14	0.75	0.57	0.47	2.35	1.97	0.47	0.27	0.50	0.73
8	0.89	0.77	2.00	0.75	0.57	0.46	2.12	3.28	0.46	0.26	0.47	0.68
9	0.94	0.75	1.87	0.74	0.57	0.46	1.91	4.79	0.43	0.25	0.44	0.66
10	0.85	0.80	1.76	0.73	0.56	0.46	1.73	4.79	0.40	0.24	0.41	0.75
11	0.86	0.82	1.66	0.72	0.56	0.45	1.98	4.30	0.38	0.23	0.39	0.81
12	0.83	0.81	1.57	0.71	0.55	0.45	1.99	3.90	0.99	0.23	0.37	0.77
13	0.77	0.79	1.49	0.71	0.55	0.45	1.95	3.53	1.15	0.24	0.35	0.71
14	0.70	0.79	1.41	0.70	0.54	0.44	1.83	3.19	1.04	0.24	0.33	0.92
15	0.73	0.77	1.35	0.69	0.54	0.44	1.65	2.87	0.95	0.23	1.14	0.95
16	0.70	2.00	1.29	0.69	0.54	0.44	1.49	2.58	0.87	0.23	1.83	0.88
17	0.64	2.41	1.23	0.68	0.53	0.43	1.35	2.32	0.79	0.22	1.84	0.82
18	0.59	2.26	1.18	0.67	0.53	0.43	1.36	2.09	0.72	0.22	1.68	0.77
19	0.54	2.11	1.14	0.67	0.52	0.43	1.62	1.88	0.67	0.21	1.89	0.72
20	0.50	1.98	1.10	0.66	0.52	0.42	1.60	1.70	0.61	0.26	1.85	1.04
21	0.46	1.92	1.06	0.66	0.52	0.42	1.44	1.53	0.57	0.27	1.68	1.10
22	0.43	1.84	1.03	0.65	0.51	0.42	1.29	1.39	0.52	0.37	1.52	1.01
23	0.40	1.74	1.00	0.64	0.51	0.42	1.17	1.26	0.49	0.40	2.01	0.93
24	0.37	1.66	0.97	0.64	0.51	0.41	1.07	1.14	0.45	0.37	2.07	0.86
25	0.35	1.59	0.95	0.63	0.50	0.41	1.02	1.03	0.42	0.35	1.88	0.80
26	0.32	1.53	0.93	0.63	0.50	0.41	0.98	0.94	0.40	0.38	1.70	0.74
27	0.31	1.48	0.91	0.62	0.50	0.40	0.95	0.86	0.40	0.38	1.75	0.77
28	0.29	1.43	0.89	0.62	0.49	0.40	0.93	0.78	0.39	0.36	1.72	0.74
29	0.27	1.39	0.87	0.61	0.0	0.40	0.87	0.71	0.40	0.59	1.58	0.70
30	0.26	1.36	0.85	0.61	0.0	0.39	0.79	0.66	0.39	0.64	1.44	0.77
31	0.25	0.0	0.84	0.61	0.0	1.28	0.0	0.60	0.0	0.59	1.31	0.0
TOT	18.96	37.40	47.66	21.54	15.23	14.47	55.00	58.74	17.31	9.97	35.81	25.52

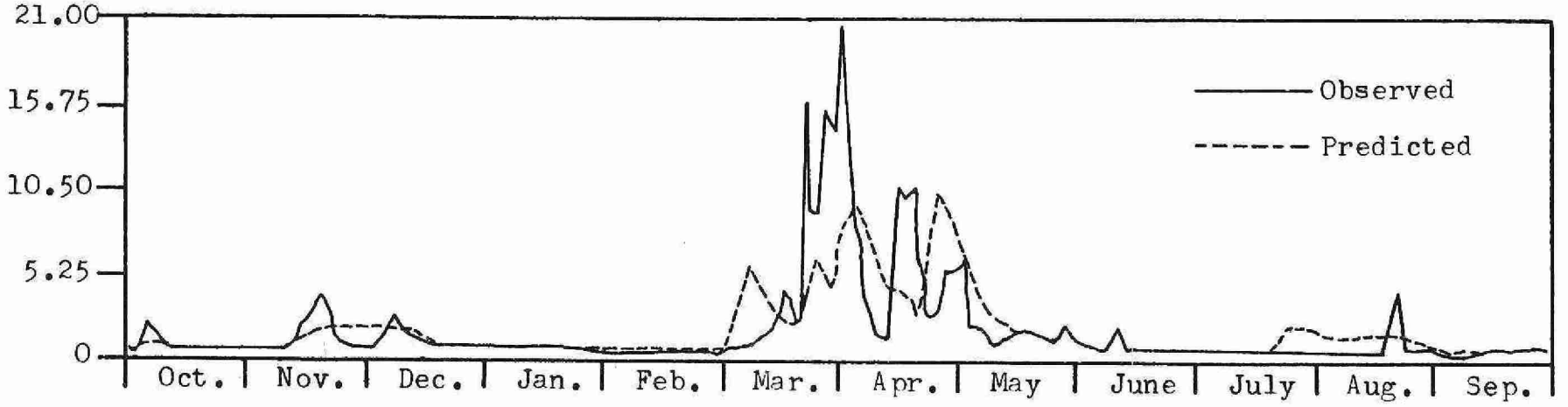
TOTAL FOR WATER YEAR = 357.60



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - DICKIE LAKE #6

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.76	0.45	1.75	1.20	0.95	0.77	8.35	6.71	0.50	0.70	1.44	1.06
2	0.70	0.47	1.71	1.19	0.94	0.77	9.66	6.02	0.47	0.65	1.32	1.35
3	1.18	0.50	1.68	1.18	0.94	1.46	9.48	5.51	0.45	0.61	1.21	1.38
4	1.28	0.53	1.64	1.17	0.93	3.75	8.50	4.98	0.43	0.57	1.11	1.27
5	1.18	0.56	1.61	1.16	0.92	5.68	7.63	4.48	0.41	0.54	1.02	1.17
6	1.11	0.59	1.58	1.15	0.92	5.70	6.85	4.04	0.39	0.51	0.94	1.08
7	1.07	0.62	1.56	1.14	0.91	5.16	6.15	3.64	0.38	0.49	1.05	1.00
8	1.31	0.65	1.53	1.13	0.90	4.68	5.52	3.28	0.37	0.46	1.04	0.92
9	1.31	0.68	1.51	1.13	0.90	4.25	4.96	2.96	0.36	0.44	0.97	0.86
10	1.20	0.72	1.49	1.12	0.89	3.87	4.46	2.67	0.71	0.42	0.90	0.82
11	1.10	0.82	1.47	1.11	0.88	3.52	4.01	2.43	0.80	0.41	0.83	0.78
12	1.02	0.88	1.45	1.10	0.88	3.22	3.62	2.37	0.75	0.39	0.77	0.73
13	0.94	0.91	1.43	1.09	0.87	2.94	4.19	2.20	0.69	0.38	0.72	1.46
14	0.87	0.94	1.42	1.08	0.86	2.70	4.44	2.01	0.65	0.39	0.68	1.64
15	0.81	0.98	1.40	1.08	0.86	2.48	4.64	1.83	0.61	0.39	0.64	1.50
16	0.75	1.03	1.38	1.07	0.85	2.28	4.44	1.66	0.57	0.37	0.60	1.37
17	0.70	1.87	1.37	1.06	0.84	2.11	4.11	1.51	0.54	0.36	0.56	1.26
18	0.65	2.16	1.36	1.05	0.84	1.95	3.76	1.38	0.51	0.35	0.53	1.16
19	0.63	2.08	1.34	1.04	0.83	1.81	3.41	1.26	0.48	0.34	0.51	1.07
20	0.59	2.01	1.33	1.04	0.83	1.98	3.16	1.15	0.46	0.33	0.48	0.99
21	0.56	1.95	1.32	1.03	0.82	2.35	4.41	1.06	0.45	0.33	0.46	0.94
22	0.53	1.90	1.30	1.02	0.81	2.76	6.33	0.97	0.44	0.32	0.44	0.88
23	0.50	1.86	1.29	1.01	0.81	3.42	6.51	0.90	0.42	0.31	0.57	0.82
24	0.48	1.83	1.28	1.01	0.80	5.50	7.75	0.83	0.40	0.31	1.67	0.77
25	0.54	1.80	1.27	1.00	0.80	5.75	9.99	0.77	0.39	2.06	1.95	0.72
26	0.55	1.78	1.26	0.99	0.79	5.20	10.15	0.72	0.38	2.55	1.77	0.68
27	0.56	1.77	1.25	0.98	0.79	4.71	9.20	0.67	0.37	2.31	1.62	0.64
28	0.55	1.76	1.24	0.98	0.78	4.27	8.81	0.63	0.36	2.09	1.48	0.61
29	0.52	1.75	1.23	0.97	0.0	5.64	8.32	0.59	0.35	1.90	1.35	0.58
30	0.49	1.75	1.22	0.96	0.0	6.84	7.51	0.56	0.61	1.72	1.24	0.55
31	0.47	0.0	1.21	0.96	0.0	8.49	0.0	0.53	0.0	1.57	1.14	0.0
TOT	24.91	37.59	43.87	33.20	24.12	116.01	190.34	70.31	14.70	24.57	31.00	30.06

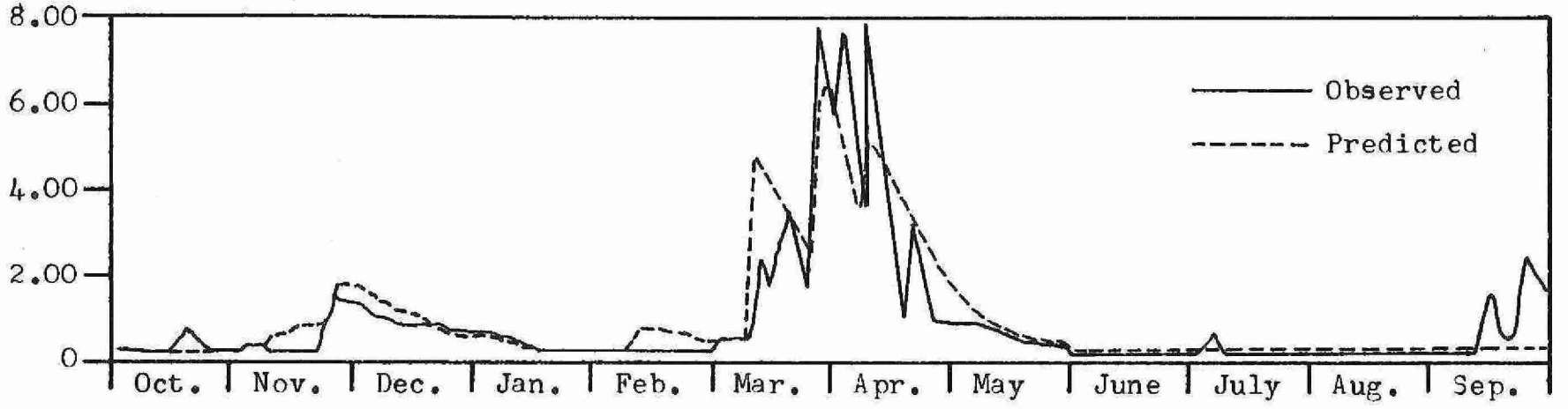
TOTAL FOR WATER YEAR = 640.68



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - DICKIE LAKE #8

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.40	0.15	1.87	0.43	0.10	0.39	6.35	1.67	0.41	0.13	0.19	0.14
2	0.38	0.20	1.79	0.41	0.10	0.37	5.98	1.58	0.39	0.12	0.18	0.14
3	0.36	0.24	1.70	0.40	0.10	0.35	5.64	1.50	0.37	0.12	0.18	0.13
4	0.34	0.28	1.62	0.38	0.09	0.33	5.32	1.42	0.35	0.11	0.20	0.13
5	0.32	0.32	1.55	0.36	0.09	0.32	5.10	1.34	0.34	0.19	0.24	0.12
6	0.44	0.36	1.48	0.34	0.08	0.30	4.85	1.27	0.32	0.18	0.22	0.12
7	0.42	0.40	1.41	0.33	0.08	0.29	4.57	1.20	0.30	0.17	0.21	0.11
8	0.40	0.44	1.34	0.31	0.08	0.27	4.30	1.14	0.29	0.17	0.20	0.11
9	0.38	0.48	1.28	0.30	0.07	0.28	4.05	1.08	0.28	0.16	0.22	0.11
10	0.36	0.52	1.22	0.29	0.07	0.42	3.82	1.02	0.26	0.15	0.21	0.12
11	0.34	0.55	1.16	0.27	0.07	0.59	3.80	0.96	0.25	0.15	0.20	0.11
12	0.32	0.59	1.11	0.26	0.75	2.54	4.89	0.91	0.24	0.14	0.19	0.11
13	0.31	0.62	1.06	0.25	0.90	3.81	5.52	0.86	0.23	0.13	0.18	0.11
14	0.29	0.65	1.01	0.24	0.85	4.17	5.38	0.82	0.22	0.13	0.17	0.10
15	0.28	0.67	0.96	0.23	0.81	5.05	5.06	0.78	0.21	0.12	0.17	0.10
16	0.27	0.70	0.92	0.22	0.77	5.01	4.75	0.73	0.20	0.12	0.18	0.10
17	0.25	0.72	0.88	0.21	0.73	4.75	4.46	0.70	0.19	0.12	0.17	0.09
18	0.24	0.79	0.84	0.20	0.69	4.50	4.19	0.66	0.18	0.11	0.17	0.09
19	0.23	0.82	0.80	0.19	0.66	4.26	3.93	0.62	0.17	0.11	0.17	0.09
20	0.22	0.84	0.76	0.18	0.62	4.04	3.69	0.59	0.17	0.10	0.16	0.27
21	0.24	0.85	0.73	0.17	0.59	3.83	3.46	0.56	0.16	0.10	0.22	0.25
22	0.24	0.86	0.69	0.17	0.56	3.63	3.25	0.53	0.15	0.10	0.21	0.24
23	0.23	0.87	0.66	0.16	0.53	3.44	3.04	0.51	0.15	0.09	0.20	0.23
24	0.22	0.88	0.63	0.15	0.51	3.26	2.84	0.48	0.14	0.10	0.19	0.22
25	0.21	0.88	0.60	0.14	0.48	3.09	2.65	0.45	0.13	0.10	0.18	0.23
26	0.20	0.89	0.57	0.14	0.46	2.93	2.47	0.43	0.13	0.10	0.18	0.35
27	0.19	1.77	0.55	0.13	0.43	2.82	2.29	0.41	0.12	0.09	0.17	0.34
28	0.18	2.03	0.52	0.13	0.41	4.22	2.13	0.39	0.14	0.09	0.16	0.32
29	0.18	1.98	0.50	0.12	0.0	4.76	1.97	0.37	0.14	0.09	0.16	0.33
30	0.17	1.93	0.48	0.11	0.0	5.80	1.82	0.35	0.13	0.08	0.15	0.31
31	0.16	0.0	0.45	0.11	0.0	6.70	0.0	0.33	0.0	0.20	0.15	0.0
TOT	8.76	23.27	31.13	7.33	11.69	87.52	121.56	25.67	6.76	3.88	5.79	5.24

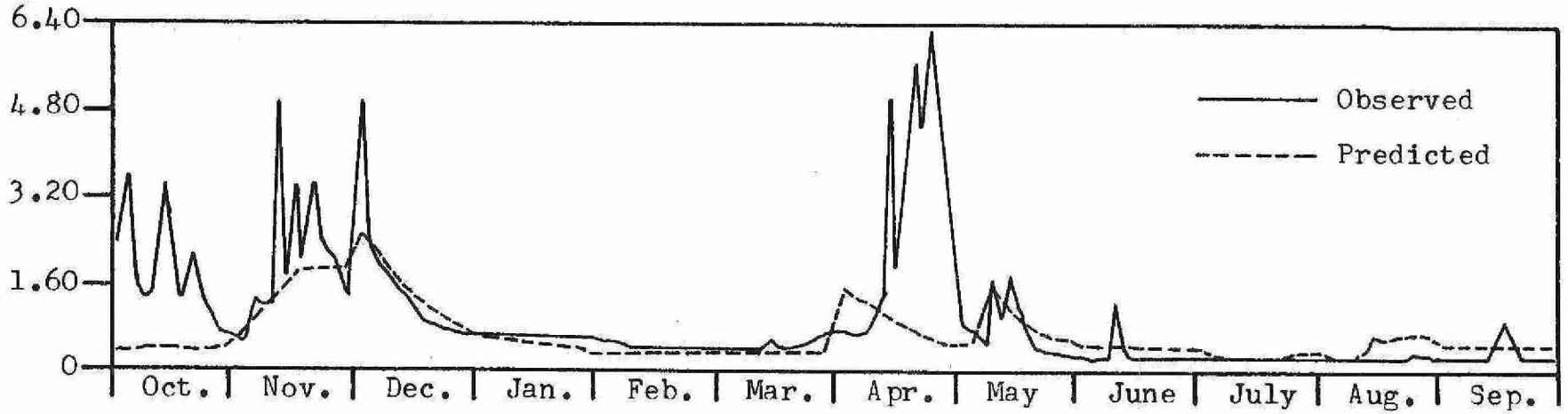
TOTAL FOR WATER YEAR = 338.60



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - DICKIE LAKE #8

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.37	0.15	2.37	0.60	0.15	0.04	1.52	0.45	0.46	0.22	0.19	0.53
2	0.35	0.21	2.46	0.58	0.14	0.04	1.65	0.43	0.44	0.21	0.24	0.50
3	0.33	0.43	2.34	0.55	0.14	0.04	1.56	0.41	0.41	0.20	0.23	0.48
4	0.32	0.49	2.24	0.53	0.13	0.04	1.46	0.39	0.41	0.19	0.22	0.46
5	0.30	0.55	2.13	0.50	0.12	0.04	1.38	0.39	0.39	0.18	0.21	0.43
6	0.29	0.61	2.03	0.48	0.12	0.03	1.31	0.72	0.37	0.18	0.20	0.41
7	0.28	0.68	1.94	0.46	0.11	0.03	1.23	0.75	0.37	0.17	0.19	0.39
8	0.37	0.73	1.85	0.44	0.11	0.03	1.16	1.25	0.35	0.16	0.18	0.38
9	0.35	0.79	1.77	0.42	0.10	0.03	1.09	1.58	0.34	0.16	0.17	0.36
10	0.33	0.86	1.68	0.40	0.10	0.03	1.03	1.50	0.32	0.15	0.17	0.39
11	0.34	0.92	1.61	0.38	0.09	0.03	1.10	1.42	0.30	0.14	0.16	0.39
12	0.33	0.97	1.53	0.37	0.09	0.03	1.11	1.35	0.52	0.14	0.15	0.37
13	0.32	1.01	1.46	0.35	0.09	0.03	1.09	1.28	0.50	0.14	0.15	0.35
14	0.30	1.05	1.40	0.33	0.08	0.02	1.05	1.22	0.47	0.13	0.14	0.42
15	0.31	1.09	1.33	0.32	0.08	0.02	0.99	1.15	0.45	0.13	0.44	0.40
16	0.30	1.60	1.27	0.30	0.08	0.02	0.93	1.09	0.42	0.12	0.58	0.39
17	0.29	1.77	1.21	0.29	0.07	0.02	0.87	1.03	0.40	0.12	0.55	0.37
18	0.27	1.78	1.16	0.28	0.07	0.02	0.86	0.98	0.38	0.11	0.53	0.36
19	0.26	1.79	1.10	0.27	0.07	0.02	0.92	0.93	0.36	0.11	0.62	0.34
20	0.25	1.80	1.05	0.25	0.06	0.02	0.90	0.88	0.35	0.12	0.59	0.44
21	0.24	1.81	1.01	0.24	0.06	0.02	0.84	0.83	0.33	0.12	0.56	0.42
22	0.23	1.82	0.96	0.23	0.06	0.02	0.78	0.79	0.31	0.15	0.53	0.40
23	0.22	1.82	0.92	0.22	0.06	0.02	0.73	0.74	0.30	0.15	0.73	0.38
24	0.21	1.81	0.88	0.21	0.05	0.02	0.69	0.71	0.28	0.14	0.70	0.36
25	0.20	1.80	0.84	0.20	0.05	0.01	0.66	0.67	0.27	0.14	0.66	0.35
26	0.19	1.79	0.80	0.19	0.05	0.01	0.63	0.63	0.26	0.15	0.63	0.33
27	0.18	1.77	0.76	0.19	0.05	0.01	0.60	0.60	0.26	0.14	0.67	0.34
28	0.18	1.76	0.73	0.18	0.04	0.01	0.57	0.57	0.24	0.14	0.65	0.33
29	0.17	1.74	0.69	0.17	0.0	0.01	0.53	0.54	0.24	0.22	0.62	0.32
30	0.16	1.71	0.66	0.16	0.0	0.01	0.49	0.51	0.23	0.21	0.58	0.34
31	0.16	0.0	0.63	0.15	0.0	0.34	0.0	0.49	0.0	0.20	0.56	0.0
TOT	8.40	37.13	42.83	10.25	2.41	1.07	29.71	26.29	10.76	4.83	12.76	11.74

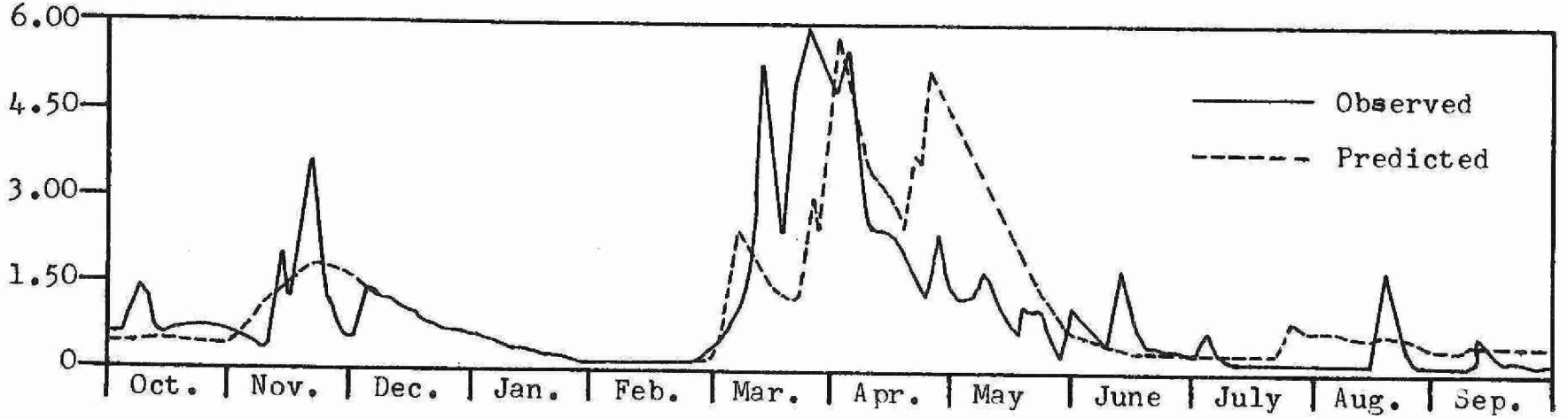
TOTAL FOR WATER YEAR = 198.19



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - DICKIE LAKE #8

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.32	0.20	1.79	0.47	0.12	0.04	4.70	3.54	0.70	0.33	0.61	0.48
2	0.31	0.28	1.71	0.45	0.12	0.04	5.57	3.35	0.67	0.32	0.58	0.57
3	0.46	0.37	1.64	0.43	0.11	0.33	5.51	3.21	0.64	0.31	0.55	0.55
4	0.44	0.45	1.57	0.41	0.11	1.57	5.18	3.03	0.61	0.29	0.53	0.52
5	0.42	0.53	1.50	0.39	0.10	2.43	4.87	2.87	0.58	0.28	0.50	0.50
6	0.41	0.61	1.44	0.38	0.10	2.50	4.59	2.72	0.55	0.27	0.48	0.48
7	0.40	0.69	1.38	0.36	0.10	2.37	4.32	2.57	0.52	0.26	0.52	0.46
8	0.49	0.76	1.32	0.35	0.09	2.25	4.06	2.44	0.50	0.25	0.50	0.44
9	0.46	0.84	1.26	0.33	0.09	2.13	3.82	2.31	0.48	0.24	0.48	0.42
10	0.44	0.91	1.21	0.32	0.08	2.02	3.60	2.18	0.59	0.23	0.46	0.41
11	0.42	0.99	1.16	0.30	0.08	1.92	3.38	2.08	0.56	0.22	0.43	0.39
12	0.40	1.06	1.11	0.29	0.08	1.82	3.19	2.01	0.53	0.22	0.42	0.37
13	0.38	1.12	1.06	0.28	0.07	1.72	3.35	1.91	0.51	0.21	0.40	0.64
14	0.37	1.18	1.02	0.27	0.07	1.63	3.37	1.81	0.48	0.21	0.38	0.61
15	0.35	1.24	0.97	0.26	0.07	1.55	3.38	1.72	0.46	0.20	0.37	0.58
16	0.33	1.30	0.93	0.25	0.07	1.47	3.25	1.62	0.44	0.20	0.35	0.56
17	0.32	1.64	0.89	0.24	0.06	1.39	3.08	1.54	0.42	0.19	0.34	0.53
18	0.31	1.77	0.86	0.23	0.06	1.32	2.91	1.46	0.40	0.18	0.32	0.51
19	0.30	1.79	0.82	0.22	0.06	1.25	2.73	1.38	0.38	0.18	0.31	0.48
20	0.28	1.82	0.79	0.21	0.06	1.24	2.59	1.31	0.37	0.17	0.30	0.46
21	0.27	1.83	0.75	0.20	0.05	1.30	3.05	1.24	0.36	0.17	0.29	0.45
22	0.26	1.85	0.72	0.19	0.05	1.39	3.69	1.18	0.34	0.16	0.27	0.43
23	0.25	1.86	0.69	0.18	0.05	1.63	3.61	1.12	0.33	0.16	0.31	0.41
24	0.24	1.86	0.66	0.17	0.05	2.80	4.16	1.06	0.31	0.15	0.69	0.39
25	0.25	1.86	0.63	0.17	0.04	2.88	4.98	1.01	0.30	0.86	0.66	0.38
26	0.24	1.86	0.61	0.16	0.04	2.74	4.85	0.96	0.29	0.81	0.63	0.36
27	0.25	1.85	0.58	0.15	0.04	2.59	4.52	0.91	0.28	0.78	0.60	0.35
28	0.24	1.84	0.56	0.15	0.04	2.46	4.41	0.86	0.27	0.74	0.57	0.33
29	0.23	1.83	0.53	0.14	0.0	3.24	4.17	0.82	0.26	0.70	0.54	0.32
30	0.22	1.81	0.51	0.14	0.0	3.75	3.85	0.78	0.35	0.67	0.52	0.31
31	0.21	0.0	0.49	0.13	0.0	4.73	0.0	0.74	0.0	0.64	0.49	0.0
TOT	10.29	38.01	31.16	8.20	2.07	60.52	118.70	55.73	13.46	10.62	14.36	13.67

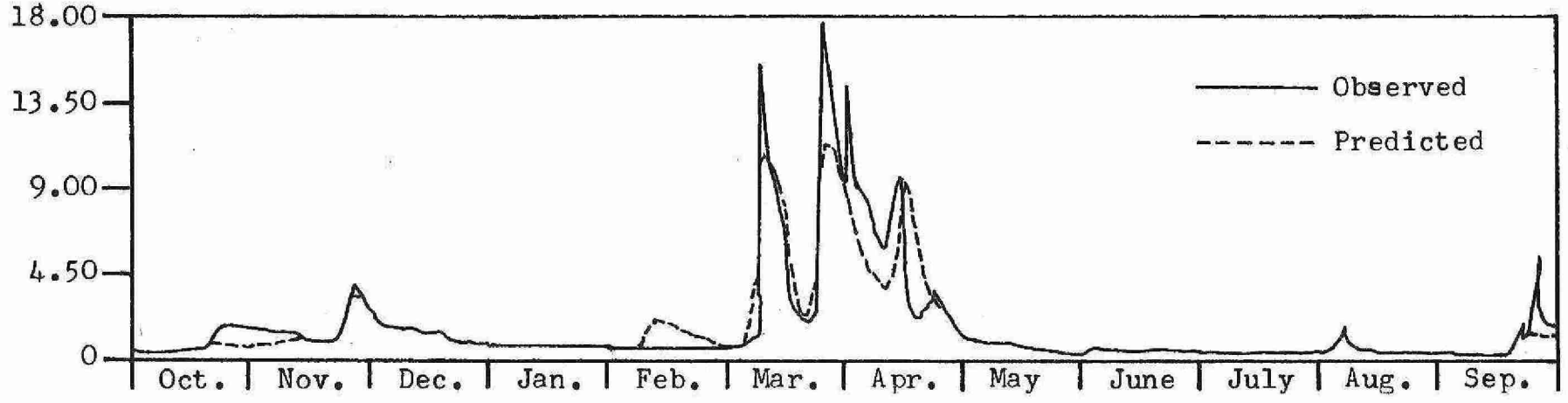
TOTAL FOR WATER YEAR = 376.78



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - DICKIE LAKE #10

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.57	0.27	2.85	0.63	0.44	0.54	10.05	0.94	0.57	0.22	0.84	0.33
2	0.51	0.28	2.58	0.62	0.43	0.51	8.78	0.83	0.66	0.21	0.75	0.30
3	0.46	0.29	2.35	0.61	0.43	0.48	7.79	0.74	0.59	0.19	0.67	0.28
4	0.42	0.30	2.14	0.60	0.42	0.46	6.85	0.65	0.52	0.18	0.78	0.26
5	0.38	0.31	1.96	0.59	0.42	0.44	6.45	0.58	0.47	0.56	1.03	0.25
6	1.00	0.36	1.80	0.58	0.42	0.42	5.80	0.52	0.42	0.65	1.00	0.23
7	1.09	0.38	1.66	0.57	0.41	0.40	5.07	0.47	0.38	0.58	0.89	0.22
8	0.97	0.39	1.54	0.57	0.41	0.39	4.44	0.42	0.34	0.52	0.79	0.21
9	0.86	0.40	1.43	0.56	0.40	0.59	3.89	0.37	0.31	0.47	0.83	0.24
10	0.77	0.42	1.33	0.55	0.40	1.27	3.47	0.34	0.28	0.42	0.78	0.28
11	0.69	0.43	1.25	0.55	0.40	1.94	3.95	0.30	0.25	0.38	0.70	0.27
12	0.62	0.45	1.18	0.54	2.02	5.97	7.37	0.28	0.23	0.34	0.62	0.26
13	0.56	0.46	1.11	0.53	2.30	9.13	9.67	0.25	0.21	0.31	0.56	0.25
14	0.50	0.48	1.05	0.53	2.05	9.89	9.13	0.23	0.20	0.28	0.50	0.23
15	0.48	0.50	1.00	0.52	1.83	11.33	7.98	0.21	0.18	0.26	0.45	0.22
16	0.44	0.51	0.96	0.52	1.64	10.61	6.98	0.19	0.18	0.24	0.53	0.23
17	0.40	0.53	0.92	0.51	1.47	9.28	6.10	0.18	0.18	0.22	0.51	0.23
18	0.37	0.81	0.88	0.51	1.33	8.12	5.34	0.17	0.17	0.20	0.46	0.22
19	0.34	0.90	0.85	0.50	1.20	7.11	4.67	0.16	0.16	0.19	0.46	0.20
20	0.31	0.88	0.82	0.50	1.09	6.23	4.09	0.15	0.15	0.18	0.43	1.11
21	0.49	0.86	0.80	0.49	0.99	5.46	3.63	0.14	0.14	0.17	0.74	1.28
22	0.60	0.85	0.77	0.49	0.91	4.79	3.19	0.13	0.13	0.16	0.77	1.13
23	0.57	0.84	0.75	0.48	0.83	4.20	2.79	0.12	0.13	0.15	0.69	1.00
24	0.52	0.83	0.73	0.48	0.77	3.70	2.45	0.12	0.12	0.21	0.61	0.89
25	0.47	0.83	0.72	0.47	0.71	3.25	2.14	0.11	0.12	0.22	0.55	0.91
26	0.43	0.83	0.70	0.47	0.66	2.86	1.87	0.11	0.11	0.21	0.50	1.55
27	0.39	3.38	0.68	0.46	0.61	2.86	1.64	0.11	0.11	0.19	0.45	1.60
28	0.36	3.85	0.67	0.46	0.58	5.98	1.43	0.11	0.24	0.18	0.41	1.44
29	0.33	3.47	0.66	0.45	0.0	7.73	1.25	0.11	0.26	0.17	0.38	1.39
30	0.31	3.14	0.65	0.45	0.0	11.64	1.09	0.10	0.24	0.16	0.35	1.26
31	0.29	0.0	0.64	0.44	0.0	11.50	0.0	0.10	0.0	0.74	0.35	0.0
TOT	16.48	28.20	37.42	16.21	25.55	149.09	149.34	9.23	8.07	9.16	19.42	18.28

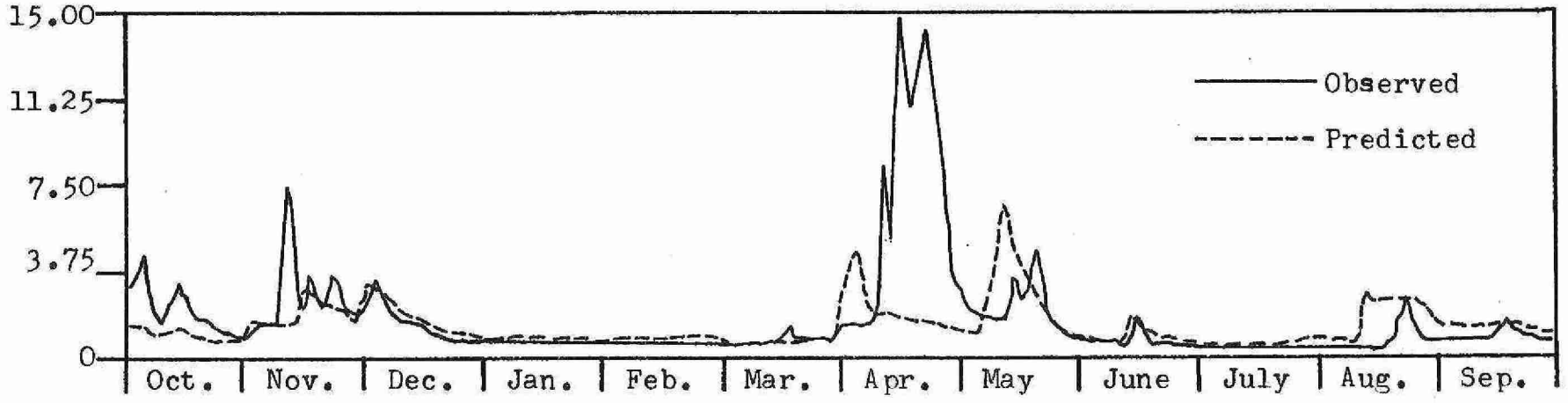
TOTAL FOR WATER YEAR = 486.45



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - DICKIE LAKE #10

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	1.55	0.27	3.41	0.91	0.64	0.48	4.18	0.80	0.50	0.43	0.75	1.49
2	1.51	0.29	3.66	0.90	0.63	0.48	4.43	0.75	0.46	0.40	0.98	1.35
3	1.33	1.07	3.33	0.88	0.63	0.47	3.89	0.68	0.42	0.37	0.97	1.22
4	1.19	1.24	3.04	0.87	0.62	0.47	3.42	0.63	0.49	0.35	0.87	1.10
5	1.06	1.15	2.78	0.86	0.61	0.46	3.06	0.69	0.48	0.33	0.79	1.00
6	0.94	1.08	2.56	0.85	0.61	0.46	2.72	2.22	0.44	0.31	0.72	0.91
7	0.84	1.09	2.36	0.84	0.60	0.45	2.39	2.86	0.51	0.30	0.65	0.83
8	1.31	1.05	2.19	0.83	0.59	0.45	2.11	4.88	0.51	0.29	0.60	0.76
9	1.36	1.01	2.04	0.82	0.59	0.44	1.86	6.70	0.46	0.28	0.55	0.75
10	1.21	1.10	1.91	0.81	0.58	0.44	1.64	6.40	0.43	0.27	0.50	0.94
11	1.22	1.12	1.79	0.80	0.58	0.44	2.12	5.60	0.40	0.26	0.47	1.03
12	1.17	1.09	1.69	0.79	0.57	0.43	2.14	4.99	1.43	0.25	0.44	0.97
13	1.06	1.05	1.60	0.78	0.57	0.43	2.16	4.43	1.61	0.28	0.41	0.88
14	0.94	1.03	1.52	0.77	0.56	0.42	2.01	3.92	1.43	0.28	0.39	1.26
15	1.00	1.01	1.45	0.76	0.55	0.42	1.77	3.45	1.27	0.27	1.74	1.28
16	0.94	2.88	1.38	0.75	0.55	0.41	1.56	3.03	1.13	0.26	2.77	1.17
17	0.85	3.30	1.33	0.75	0.54	0.41	1.38	2.66	1.01	0.25	2.70	1.07
18	0.76	3.02	1.28	0.74	0.54	0.41	1.48	2.34	0.91	0.25	2.41	1.00
19	0.69	2.77	1.23	0.73	0.53	0.40	1.94	2.07	0.82	0.24	2.77	0.92
20	0.62	2.56	1.19	0.72	0.53	0.40	1.91	1.82	0.74	0.33	2.65	1.48
21	0.57	2.47	1.15	0.71	0.52	0.39	1.68	1.61	0.67	0.34	2.34	1.54
22	0.52	2.33	1.12	0.71	0.52	0.39	1.48	1.43	0.61	0.52	2.07	1.38
23	0.48	2.19	1.09	0.70	0.51	0.39	1.31	1.27	0.56	0.55	2.89	1.25
24	0.44	2.06	1.06	0.69	0.51	0.38	1.19	1.13	0.51	0.50	2.91	1.13
25	0.41	1.95	1.04	0.69	0.50	0.38	1.14	1.01	0.47	0.46	2.58	1.02
26	0.38	1.86	1.02	0.68	0.50	0.37	1.12	0.90	0.44	0.52	2.28	0.93
27	0.35	1.78	0.99	0.67	0.49	0.37	1.11	0.81	0.46	0.50	2.39	1.00
28	0.33	1.72	0.98	0.67	0.49	0.37	1.10	0.73	0.45	0.47	2.33	0.95
29	0.31	1.67	0.96	0.66	0.0	0.36	1.04	0.66	0.48	0.87	2.09	0.90
30	0.30	1.62	0.94	0.65	0.0	0.36	0.92	0.60	0.46	0.92	1.86	1.02
31	0.28	0.0	0.93	0.64	0.0	1.46	0.0	0.55	0.0	0.83	1.66	0.0
TOT	25.91	48.81	53.00	23.62	15.65	14.00	60.26	71.62	20.54	12.49	49.53	32.51

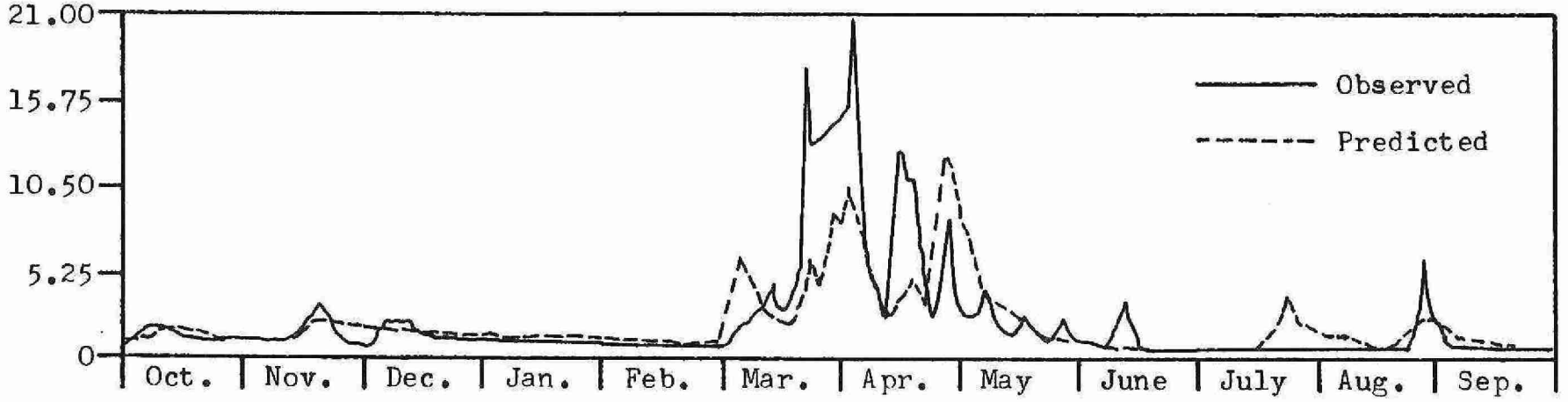
TOTAL FOR WATER YEAR = 427.93



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - DICKIE LAKE #10

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	1.00	0.56	2.15	1.38	1.01	0.76	8.89	8.01	0.43	0.93	1.73	1.29
2	0.91	0.59	2.10	1.37	1.00	0.76	10.56	7.02	0.41	0.86	1.55	1.81
3	1.73	0.62	2.05	1.36	0.99	1.59	10.09	6.35	0.40	0.78	1.39	1.83
4	1.84	0.66	2.01	1.34	0.98	4.38	8.84	5.63	0.38	0.72	1.25	1.64
5	1.64	0.70	1.97	1.33	0.97	6.56	7.75	4.94	0.37	0.66	1.13	1.47
6	1.54	0.74	1.93	1.31	0.96	6.37	6.79	4.38	0.35	0.61	1.02	1.33
7	1.48	0.78	1.89	1.30	0.95	5.63	5.96	3.86	0.34	0.57	1.24	1.20
8	1.88	0.82	1.86	1.29	0.94	4.99	5.23	3.40	0.33	0.53	1.22	1.09
9	1.86	0.87	1.83	1.27	0.93	4.43	4.60	2.99	0.33	0.50	1.12	1.00
10	1.66	0.91	1.80	1.26	0.92	3.95	4.04	2.64	0.94	0.47	1.02	0.95
11	1.49	1.09	1.77	1.25	0.91	3.52	3.55	2.38	1.05	0.45	0.93	0.89
12	1.36	1.17	1.75	1.24	0.90	3.15	3.15	2.41	0.95	0.43	0.85	0.82
13	1.23	1.20	1.72	1.22	0.90	2.83	4.20	2.23	0.87	0.41	0.78	2.03
14	1.12	1.23	1.70	1.21	0.89	2.54	4.64	2.01	0.79	0.43	0.72	2.22
15	1.02	1.29	1.68	1.20	0.88	2.29	5.09	1.80	0.72	0.43	0.67	1.98
16	0.93	1.37	1.65	1.19	0.87	2.08	4.86	1.60	0.67	0.41	0.62	1.77
17	0.85	2.66	1.63	1.18	0.86	1.89	4.47	1.43	0.62	0.40	0.58	1.59
18	0.79	2.96	1.61	1.16	0.85	1.72	4.05	1.28	0.57	0.38	0.55	1.43
19	0.76	2.80	1.60	1.15	0.84	1.58	3.62	1.15	0.54	0.37	0.51	1.29
20	0.71	2.66	1.58	1.14	0.84	1.81	3.35	1.04	0.50	0.36	0.49	1.17
21	0.67	2.55	1.56	1.13	0.83	2.28	5.33	0.94	0.50	0.35	0.46	1.11
22	0.63	2.46	1.54	1.12	0.82	2.76	8.07	0.86	0.49	0.34	0.44	1.03
23	0.59	2.39	1.52	1.11	0.81	3.55	8.14	0.78	0.46	0.33	0.68	0.94
24	0.56	2.32	1.51	1.10	0.80	6.10	10.03	0.72	0.44	0.32	2.48	0.87
25	0.70	2.28	1.49	1.08	0.79	6.18	13.10	0.66	0.41	3.04	2.76	0.80
26	0.71	2.24	1.47	1.07	0.79	5.46	13.06	0.62	0.40	3.53	2.45	0.74
27	0.74	2.21	1.46	1.06	0.78	4.83	11.57	0.57	0.39	3.12	2.18	0.69
28	0.72	2.19	1.44	1.05	0.77	4.28	11.11	0.54	0.37	2.76	1.94	0.65
29	0.67	2.17	1.43	1.04	0.0	6.02	10.39	0.51	0.36	2.44	1.73	0.61
30	0.63	2.16	1.41	1.03	0.0	7.35	9.18	0.49	0.83	2.17	1.55	0.58
31	0.59	0.0	1.40	1.02	0.0	9.30	0.0	0.46	0.0	1.93	1.40	0.0
TOT	32.98	48.64	52.52	36.97	24.79	120.93	213.70	73.72	16.22	31.03	37.43	36.81

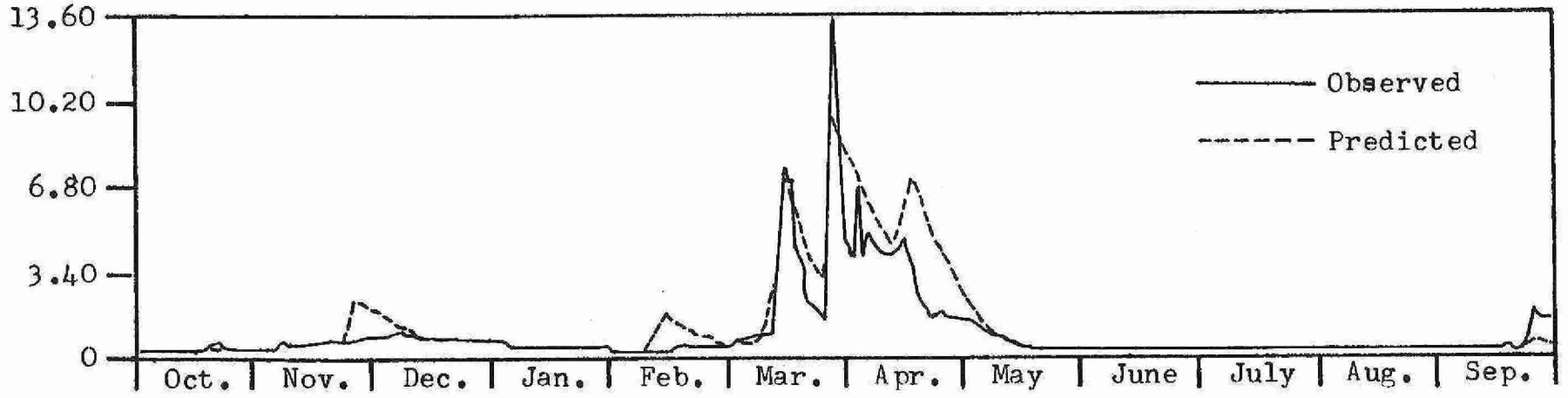
TOTAL FOR WATER YEAR = 725.74



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - DICKIE LAKE #11

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.40	0.13	1.93	0.43	0.18	0.45	8.19	1.46	0.28	0.09	0.25	0.14
2	0.37	0.15	1.81	0.42	0.18	0.42	7.53	1.35	0.28	0.08	0.23	0.13
3	0.34	0.16	1.70	0.40	0.17	0.39	6.96	1.24	0.26	0.08	0.22	0.12
4	0.32	0.18	1.60	0.39	0.17	0.37	6.41	1.14	0.24	0.08	0.25	0.12
5	0.30	0.20	1.51	0.38	0.17	0.34	6.09	1.05	0.23	0.19	0.31	0.11
6	0.50	0.22	1.42	0.36	0.16	0.32	5.65	0.97	0.21	0.20	0.29	0.11
7	0.49	0.24	1.34	0.35	0.16	0.30	5.20	0.89	0.20	0.19	0.27	0.10
8	0.45	0.26	1.27	0.34	0.16	0.28	4.78	0.82	0.18	0.17	0.25	0.09
9	0.42	0.27	1.20	0.33	0.15	0.41	4.39	0.76	0.17	0.16	0.27	0.10
10	0.39	0.29	1.13	0.32	0.15	0.88	4.06	0.70	0.16	0.15	0.25	0.11
11	0.36	0.30	1.07	0.31	0.15	1.30	4.09	0.65	0.15	0.14	0.23	0.10
12	0.33	0.32	1.02	0.30	1.47	4.25	5.81	0.60	0.14	0.13	0.22	0.10
13	0.31	0.34	0.97	0.30	1.51	6.20	6.70	0.55	0.13	0.12	0.20	0.09
14	0.29	0.35	0.92	0.29	1.39	6.73	6.37	0.51	0.12	0.12	0.19	0.09
15	0.27	0.37	0.87	0.28	1.29	8.01	5.86	0.47	0.11	0.11	0.18	0.08
16	0.25	0.38	0.83	0.27	1.19	7.56	5.38	0.43	0.11	0.10	0.20	0.08
17	0.23	0.40	0.79	0.27	1.10	6.95	4.95	0.40	0.11	0.10	0.19	0.08
18	0.22	0.49	0.76	0.26	1.02	6.40	4.55	0.37	0.10	0.09	0.18	0.08
19	0.20	0.51	0.72	0.25	0.95	5.88	4.18	0.34	0.09	0.09	0.18	0.07
20	0.19	0.52	0.69	0.24	0.88	5.41	3.84	0.32	0.09	0.08	0.17	0.34
21	0.23	0.53	0.66	0.24	0.81	4.98	3.54	0.29	0.08	0.08	0.26	0.35
22	0.25	0.53	0.63	0.23	0.75	4.58	3.26	0.27	0.08	0.08	0.26	0.33
23	0.24	0.54	0.61	0.23	0.70	4.21	2.99	0.25	0.08	0.07	0.24	0.30
24	0.22	0.55	0.58	0.22	0.65	3.88	2.74	0.23	0.07	0.09	0.22	0.28
25	0.21	0.55	0.56	0.22	0.60	3.57	2.51	0.22	0.07	0.09	0.21	0.29
26	0.19	0.56	0.54	0.21	0.56	3.28	2.30	0.20	0.07	0.08	0.19	0.48
27	0.18	2.11	0.52	0.21	0.52	3.26	2.11	0.19	0.06	0.08	0.18	0.47
28	0.17	2.27	0.50	0.20	0.49	5.50	1.93	0.18	0.10	0.07	0.17	0.44
29	0.16	2.15	0.48	0.20	0.0	6.42	1.76	0.17	0.10	0.07	0.16	0.44
30	0.15	2.03	0.46	0.19	0.0	9.29	1.61	0.15	0.09	0.07	0.15	0.41
31	0.14	0.0	0.45	0.19	0.0	8.90	0.0	0.14	0.0	0.24	0.15	0.0
TOT	8.76	17.90	29.55	8.83	17.69	120.75	135.76	17.32	4.16	3.51	6.71	6.06

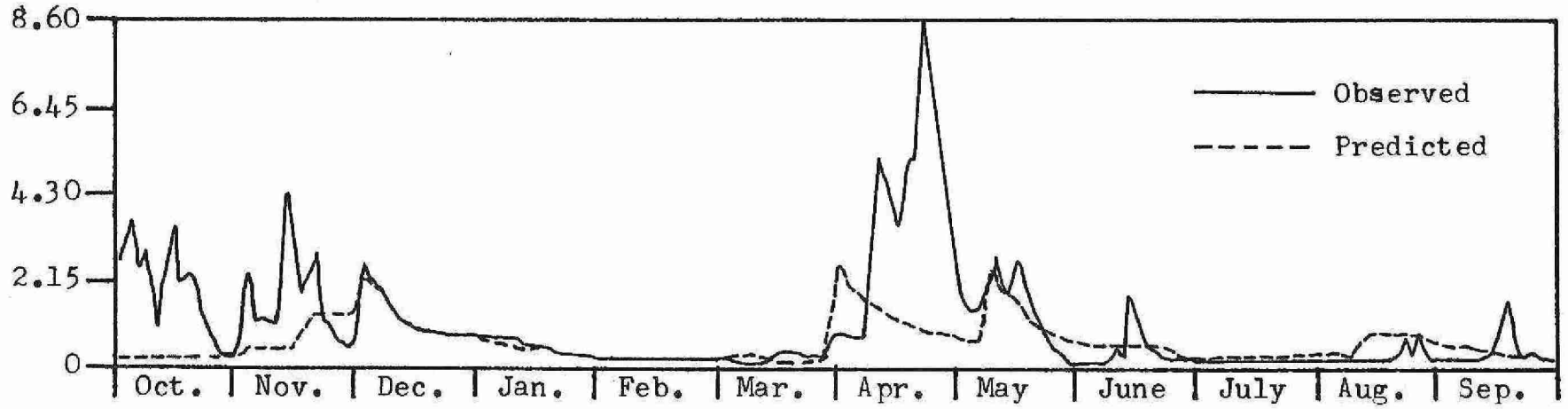
TOTAL FOR WATER YEAR = 376.99



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIDS - DICKIE LAKE #11

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.49	0.13	2.43	0.54	0.22	0.12	2.75	0.53	0.43	0.21	0.25	0.69
2	0.47	0.15	2.44	0.52	0.22	0.12	2.74	0.50	0.40	0.20	0.33	0.65
3	0.43	0.42	2.28	0.50	0.21	0.11	2.52	0.46	0.37	0.18	0.32	0.60
4	0.40	0.45	2.14	0.49	0.21	0.11	2.31	0.43	0.38	0.17	0.30	0.56
5	0.37	0.45	2.02	0.47	0.20	0.11	2.15	0.44	0.35	0.16	0.28	0.52
6	0.35	0.46	1.90	0.45	0.20	0.11	1.98	1.00	0.33	0.15	0.26	0.48
7	0.32	0.48	1.78	0.44	0.19	0.10	1.82	1.13	0.34	0.15	0.24	0.45
8	0.47	0.49	1.68	0.43	0.19	0.10	1.67	1.98	0.32	0.14	0.23	0.42
9	0.46	0.49	1.59	0.41	0.18	0.10	1.54	2.62	0.30	0.13	0.21	0.40
10	0.43	0.54	1.50	0.40	0.18	0.10	1.42	2.50	0.28	0.12	0.20	0.45
11	0.44	0.56	1.42	0.39	0.18	0.10	1.55	2.30	0.26	0.12	0.19	0.46
12	0.42	0.57	1.34	0.38	0.17	0.09	1.50	2.14	0.64	0.11	0.18	0.43
13	0.39	0.57	1.27	0.37	0.17	0.09	1.47	1.98	0.64	0.12	0.17	0.40
14	0.36	0.58	1.20	0.36	0.16	0.09	1.38	1.84	0.59	0.11	0.16	0.53
15	0.38	0.59	1.14	0.35	0.16	0.09	1.27	1.69	0.55	0.11	0.64	0.51
16	0.36	1.40	1.08	0.34	0.16	0.09	1.17	1.56	0.51	0.10	0.92	0.48
17	0.34	1.53	1.03	0.33	0.15	0.08	1.07	1.43	0.47	0.10	0.88	0.45
18	0.31	1.48	0.98	0.32	0.15	0.08	1.07	1.32	0.44	0.09	0.82	0.43
19	0.29	1.42	0.93	0.31	0.15	0.08	1.18	1.22	0.41	0.09	0.97	0.40
20	0.27	1.38	0.89	0.30	0.14	0.08	1.12	1.12	0.38	0.12	0.92	0.59
21	0.25	1.36	0.85	0.29	0.14	0.08	1.03	1.03	0.35	0.11	0.85	0.58
22	0.24	1.33	0.81	0.29	0.14	0.08	0.95	0.95	0.32	0.17	0.79	0.54
23	0.22	1.30	0.78	0.28	0.14	0.07	0.87	0.88	0.30	0.17	1.10	0.50
24	0.21	1.26	0.74	0.27	0.13	0.07	0.81	0.81	0.28	0.16	1.07	0.47
25	0.19	1.23	0.71	0.26	0.13	0.07	0.77	0.75	0.26	0.15	0.99	0.44
26	0.18	1.21	0.68	0.26	0.13	0.07	0.73	0.69	0.24	0.17	0.91	0.41
27	0.17	1.18	0.66	0.25	0.12	0.07	0.71	0.64	0.25	0.16	0.97	0.43
28	0.16	1.16	0.63	0.25	0.12	0.07	0.68	0.59	0.23	0.16	0.94	0.41
29	0.15	1.14	0.61	0.24	0.0	0.07	0.64	0.55	0.24	0.29	0.87	0.39
30	0.14	1.12	0.58	0.23	0.0	0.06	0.58	0.50	0.22	0.29	0.80	0.42
31	0.14	0.0	0.56	0.23	0.0	0.87	0.0	0.47	0.0	0.27	0.74	0.0
TOT	9.82	26.44	38.66	10.92	4.65	3.52	41.45	36.06	11.09	4.79	18.47	14.48

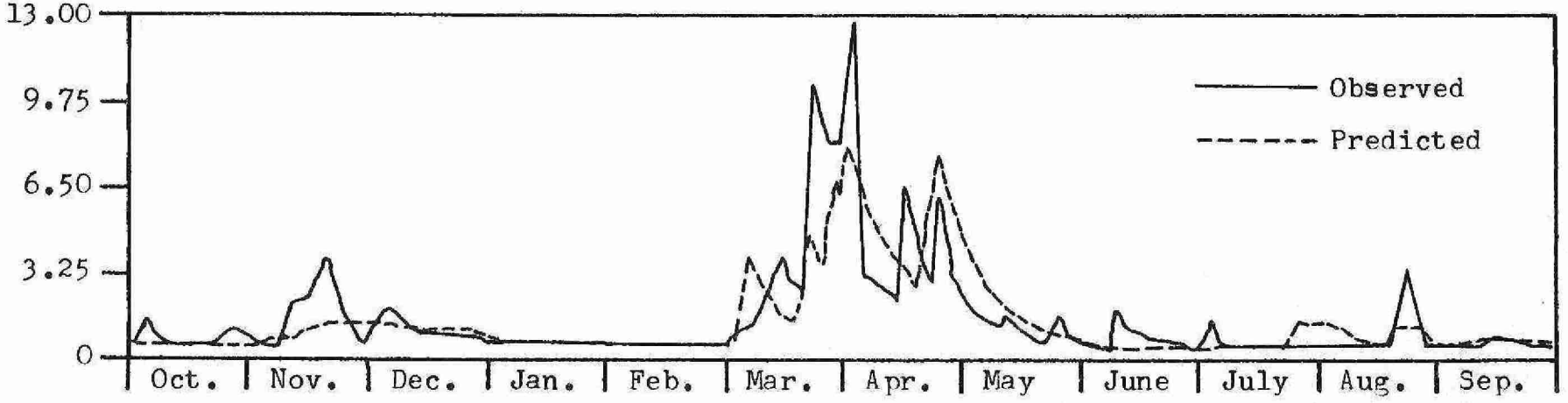
TOTAL FOR WATER YEAR = 220.36



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - DICKIE LAKE #11

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.40	0.23	1.34	0.60	0.30	0.17	6.66	5.23	0.50	0.39	0.92	0.66
2	0.38	0.26	1.30	0.58	0.30	0.16	8.09	4.81	0.47	0.36	0.85	0.86
3	0.68	0.29	1.26	0.57	0.29	0.82	7.69	4.51	0.44	0.34	0.79	0.83
4	0.67	0.33	1.22	0.56	0.28	2.80	7.07	4.16	0.41	0.32	0.73	0.77
5	0.62	0.36	1.19	0.55	0.28	4.17	6.50	3.83	0.38	0.30	0.68	0.71
6	0.60	0.40	1.15	0.53	0.27	3.99	5.97	3.53	0.36	0.28	0.64	0.67
7	0.58	0.43	1.12	0.52	0.27	3.68	5.49	3.25	0.34	0.27	0.71	0.62
8	0.74	0.46	1.09	0.51	0.26	3.39	5.05	3.00	0.31	0.25	0.68	0.58
9	0.71	0.50	1.06	0.50	0.26	3.12	4.64	2.76	0.30	0.24	0.63	0.54
10	0.66	0.53	1.03	0.49	0.25	2.88	4.27	2.54	0.54	0.23	0.59	0.52
11	0.61	0.61	1.00	0.48	0.24	2.65	3.92	2.36	0.54	0.22	0.55	0.49
12	0.57	0.65	0.97	0.47	0.24	2.45	3.62	2.29	0.50	0.21	0.51	0.46
13	0.53	0.68	0.95	0.46	0.23	2.26	3.99	2.12	0.47	0.20	0.48	0.97
14	0.49	0.71	0.92	0.45	0.23	2.08	3.99	1.97	0.44	0.20	0.45	0.96
15	0.46	0.74	0.90	0.44	0.22	1.92	4.06	1.82	0.41	0.20	0.42	0.89
16	0.43	0.79	0.88	0.43	0.22	1.77	3.84	1.68	0.38	0.19	0.40	0.83
17	0.40	1.39	0.85	0.42	0.22	1.64	3.59	1.55	0.36	0.18	0.37	0.77
18	0.38	1.49	0.83	0.41	0.21	1.51	3.34	1.43	0.34	0.17	0.35	0.72
19	0.36	1.47	0.81	0.40	0.21	1.40	3.08	1.32	0.32	0.17	0.33	0.67
20	0.34	1.45	0.79	0.39	0.20	1.55	2.89	1.22	0.30	0.16	0.31	0.63
21	0.32	1.43	0.77	0.38	0.20	1.84	3.80	1.13	0.29	0.15	0.29	0.60
22	0.30	1.42	0.76	0.38	0.19	2.13	4.99	1.04	0.28	0.15	0.28	0.56
23	0.28	1.41	0.74	0.37	0.19	2.68	4.88	0.97	0.26	0.14	0.36	0.52
24	0.27	1.40	0.72	0.36	0.19	4.50	5.92	0.89	0.25	0.14	1.08	0.49
25	0.30	1.39	0.70	0.35	0.18	4.37	7.44	0.83	0.23	1.41	1.09	0.46
26	0.29	1.38	0.69	0.34	0.18	4.02	7.30	0.77	0.22	1.45	1.01	0.43
27	0.30	1.37	0.67	0.34	0.17	3.70	6.73	0.72	0.21	1.34	0.94	0.41
28	0.29	1.36	0.65	0.33	0.17	3.41	6.59	0.66	0.20	1.24	0.87	0.38
29	0.27	1.36	0.64	0.32	0.0	4.77	6.24	0.62	0.19	1.15	0.81	0.36
30	0.26	1.35	0.62	0.32	0.0	5.58	5.73	0.58	0.38	1.06	0.75	0.34
31	0.24	0.0	0.61	0.31	0.0	7.02	0.0	0.54	0.0	0.99	0.70	0.0
TOT	13.73	27.61	28.25	13.53	6.45	88.45	157.34	64.13	10.60	14.10	19.60	18.71

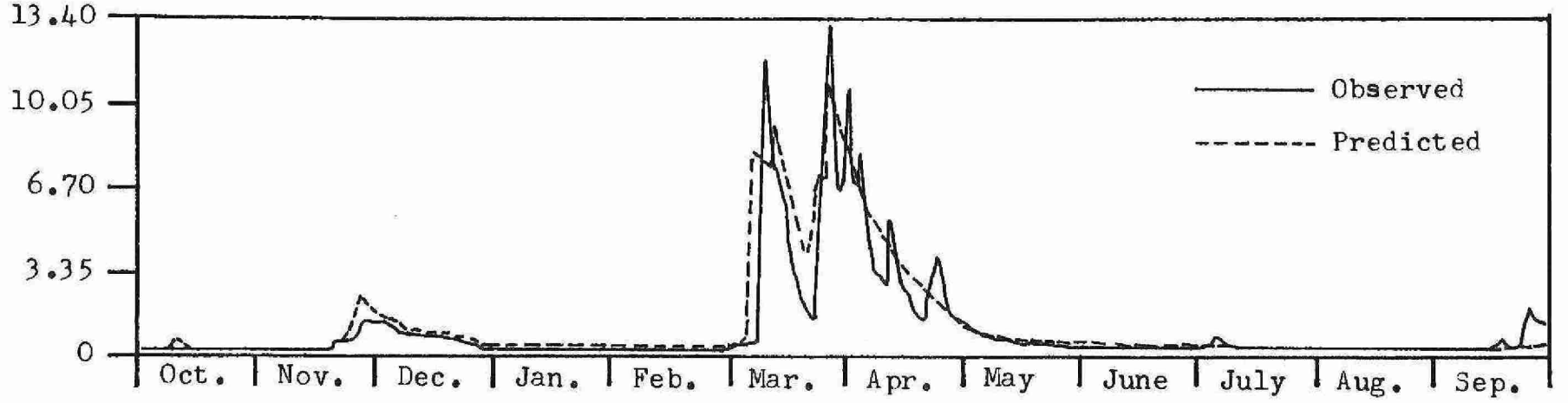
TOTAL FOR WATER YEAR = 462.49



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - CHUB LAKE #1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.29	0.17	1.17	0.38	0.29	0.27	8.18	1.03	0.42	0.14	0.22	0.17
2	0.28	0.17	1.10	0.37	0.29	0.27	7.53	0.96	0.32	0.14	0.21	0.16
3	0.27	0.17	1.04	0.37	0.29	0.27	7.01	0.89	0.31	0.14	0.21	0.16
4	0.26	0.18	0.98	0.36	0.29	0.27	6.44	0.83	0.29	0.14	0.24	0.16
5	0.25	0.18	0.93	0.36	0.29	0.27	5.95	0.77	0.28	0.22	0.31	0.15
6	0.40	0.19	0.88	0.35	0.29	0.26	5.48	0.72	0.26	0.19	0.26	0.15
7	0.33	0.19	0.83	0.35	0.29	0.26	5.05	0.67	0.25	0.18	0.25	0.15
8	0.31	0.19	0.79	0.34	0.29	0.26	4.65	0.63	0.24	0.17	0.24	0.14
9	0.30	0.20	0.76	0.34	0.29	0.26	4.29	0.59	0.23	0.17	0.28	0.17
10	0.28	0.20	0.72	0.34	0.28	0.73	3.97	0.55	0.22	0.16	0.25	0.16
11	0.27	0.21	0.69	0.33	0.28	1.22	3.93	0.51	0.21	0.16	0.24	0.15
12	0.26	0.21	0.66	0.33	0.28	6.92	5.36	0.48	0.21	0.16	0.23	0.15
13	0.25	0.22	0.63	0.33	0.28	8.27	4.37	0.45	0.20	0.15	0.22	0.15
14	0.24	0.22	0.61	0.32	0.28	7.73	4.03	0.43	0.19	0.15	0.21	0.14
15	0.23	0.23	0.58	0.32	0.28	9.74	3.72	0.40	0.19	0.15	0.20	0.14
16	0.22	0.23	0.56	0.32	0.28	7.95	3.43	0.38	0.18	0.14	0.23	0.14
17	0.22	0.24	0.54	0.32	0.28	7.33	3.17	0.36	0.18	0.14	0.21	0.14
18	0.21	0.24	0.53	0.32	0.28	6.76	2.92	0.34	0.17	0.14	0.20	0.14
19	0.20	0.30	0.51	0.31	0.28	6.24	2.70	0.32	0.17	0.14	0.20	0.13
20	0.20	0.28	0.49	0.31	0.28	5.76	2.49	0.30	0.16	0.14	0.19	0.35
21	0.23	0.29	0.48	0.31	0.27	5.31	2.30	0.29	0.16	0.13	0.26	0.26
22	0.23	0.29	0.47	0.31	0.27	4.91	2.12	0.27	0.16	0.13	0.23	0.25
23	0.21	0.29	0.45	0.31	0.27	4.53	1.96	0.26	0.15	0.13	0.22	0.24
24	0.21	0.30	0.44	0.30	0.27	4.19	1.81	0.25	0.15	0.15	0.21	0.23
25	0.20	0.41	0.43	0.30	0.27	3.87	1.67	0.24	0.15	0.14	0.20	0.27
26	0.20	0.37	0.42	0.30	0.27	3.58	1.54	0.23	0.14	0.14	0.20	0.46
27	0.19	2.04	0.41	0.30	0.27	3.69	1.42	0.22	0.14	0.14	0.19	0.36
28	0.18	1.38	0.40	0.30	0.27	7.18	1.31	0.21	0.16	0.14	0.18	0.34
29	0.18	1.30	0.40	0.30	0.0	7.03	1.21	0.20	0.15	0.13	0.18	0.34
30	0.18	1.23	0.39	0.30	0.0	11.47	1.12	0.20	0.15	0.13	0.17	0.32
31	0.17	0.0	0.38	0.30	0.0	8.96	0.0	0.19	0.0	0.29	0.17	0.0
TOT	7.44	12.14	19.68	10.09	7.87	135.76	111.13	14.18	6.18	4.77	6.81	6.26

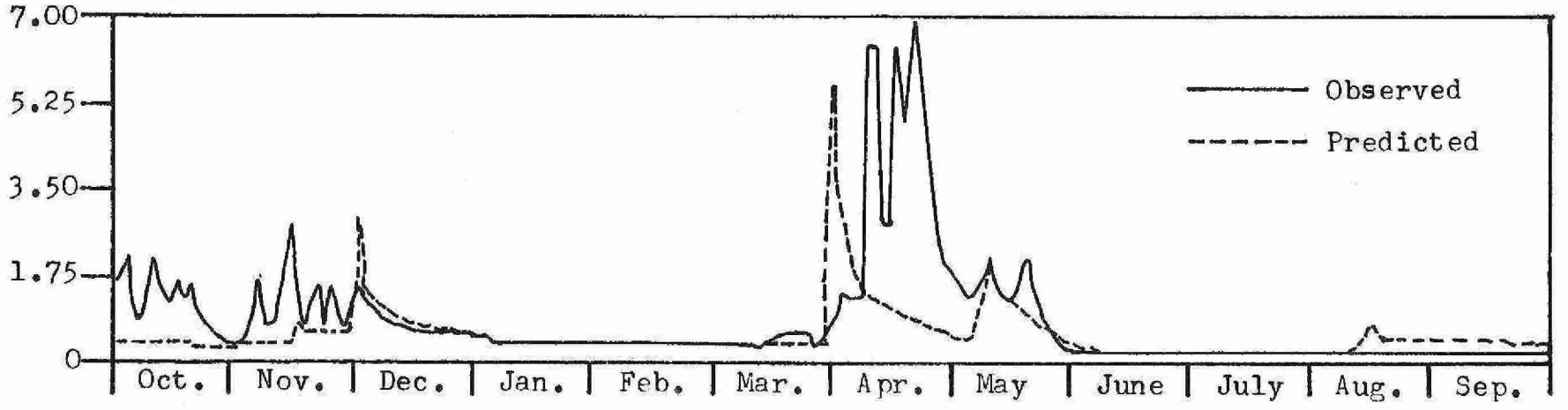
TOTAL FOR WATER YEAR = 342.32



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - CHUB LAKE #1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.39	0.16	2.92	0.41	0.27	0.24	5.56	0.46	0.35	0.21	0.21	0.48
2	0.34	0.16	1.88	0.40	0.27	0.24	3.75	0.44	0.33	0.21	0.24	0.46
3	0.32	0.27	1.75	0.39	0.27	0.24	3.46	0.41	0.31	0.20	0.22	0.43
4	0.31	0.23	1.63	0.38	0.27	0.24	3.20	0.38	0.32	0.19	0.21	0.41
5	0.29	0.23	1.53	0.37	0.26	0.24	2.97	0.38	0.29	0.19	0.20	0.38
6	0.28	0.23	1.43	0.36	0.26	0.24	2.74	0.77	0.28	0.18	0.20	0.36
7	0.27	0.24	1.34	0.36	0.26	0.24	2.53	0.69	0.28	0.18	0.19	0.35
8	0.36	0.24	1.25	0.35	0.26	0.24	2.33	1.16	0.26	0.17	0.18	0.33
9	0.31	0.24	1.18	0.34	0.26	0.24	2.16	2.06	0.25	0.17	0.18	0.32
10	0.29	0.24	1.10	0.34	0.26	0.24	1.99	1.58	0.24	0.16	0.17	0.38
11	0.30	0.24	1.04	0.33	0.26	0.24	1.84	1.45	0.23	0.16	0.18	0.36
12	0.28	0.24	0.98	0.33	0.26	0.23	1.72	1.35	0.63	0.16	0.17	0.34
13	0.27	0.24	0.92	0.32	0.26	0.23	1.59	1.25	0.46	0.16	0.16	0.32
14	0.26	0.24	0.87	0.32	0.26	0.23	1.47	1.17	0.43	0.15	0.16	0.38
15	0.27	0.24	0.83	0.31	0.25	0.23	1.36	1.08	0.41	0.15	0.97	0.34
16	0.25	0.81	0.78	0.31	0.25	0.23	1.26	1.01	0.38	0.15	0.79	0.33
17	0.24	0.61	0.74	0.31	0.25	0.23	1.17	0.93	0.36	0.14	0.69	0.31
18	0.23	0.58	0.71	0.30	0.25	0.23	1.08	0.87	0.34	0.14	0.65	0.30
19	0.22	0.56	0.67	0.30	0.25	0.23	1.09	0.81	0.32	0.14	0.78	0.29
20	0.22	0.54	0.64	0.30	0.25	0.23	0.98	0.75	0.31	0.20	0.67	0.49
21	0.21	0.55	0.61	0.29	0.25	0.23	0.91	0.70	0.29	0.17	0.63	0.40
22	0.20	0.52	0.59	0.29	0.25	0.23	0.84	0.65	0.28	0.18	0.59	0.38
23	0.19	0.51	0.56	0.29	0.25	0.23	0.78	0.61	0.27	0.17	0.87	0.36
24	0.19	0.49	0.54	0.29	0.25	0.23	0.73	0.57	0.25	0.17	0.72	0.34
25	0.18	0.48	0.52	0.28	0.25	0.23	0.68	0.53	0.24	0.16	0.67	0.32
26	0.18	0.47	0.50	0.28	0.24	0.23	0.64	0.50	0.23	0.16	0.63	0.31
27	0.17	0.46	0.48	0.28	0.24	0.23	0.61	0.47	0.26	0.16	0.66	0.32
28	0.17	0.45	0.46	0.28	0.24	0.22	0.57	0.44	0.24	0.16	0.62	0.30
29	0.17	0.45	0.45	0.28	0.0	0.22	0.54	0.41	0.23	0.28	0.57	0.29
30	0.16	0.44	0.44	0.27	0.0	0.22	0.49	0.39	0.22	0.23	0.54	0.32
31	0.16	0.0	0.42	0.27	0.0	2.28	0.0	0.37	0.0	0.22	0.51	0.0
TOT	7.71	11.37	29.76	9.92	7.15	9.26	51.03	24.65	9.33	5.48	14.26	10.71

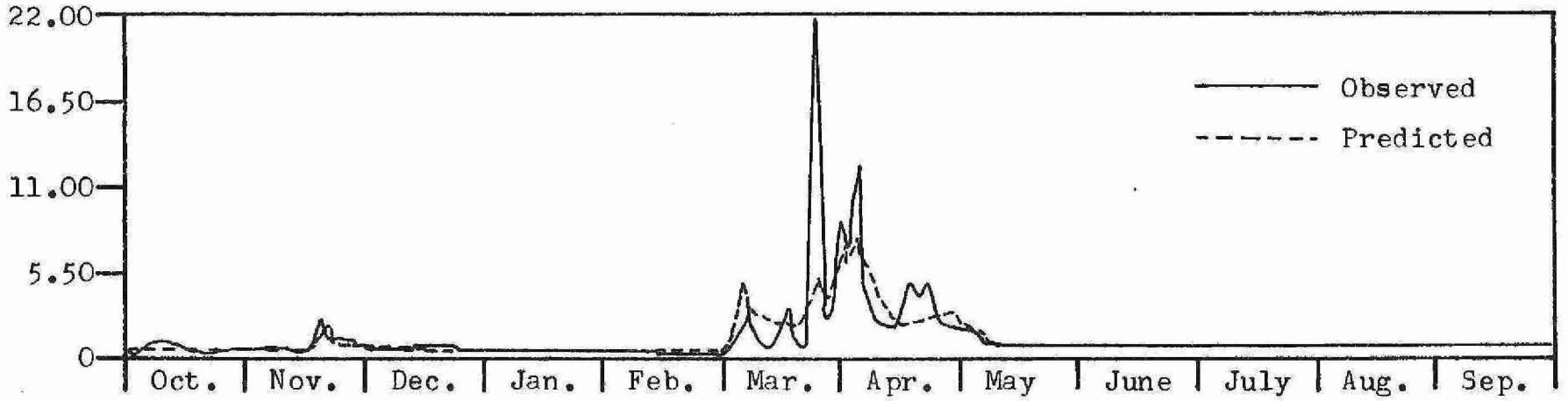
TOTAL FOR WATER YEAR = 190.64



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - CHUB LAKE #1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.30	0.20	0.93	0.41	0.35	0.32	6.22	2.52	0.37	0.36	0.51	0.54
2	0.28	0.20	0.88	0.41	0.35	0.32	8.84	2.33	0.35	0.34	0.48	0.81
3	0.50	0.21	0.84	0.41	0.35	0.32	7.13	2.20	0.34	0.33	0.46	0.66
4	0.40	0.21	0.81	0.40	0.34	4.21	6.57	2.02	0.33	0.32	0.44	0.62
5	0.38	0.21	0.77	0.40	0.34	5.48	6.06	1.88	0.31	0.31	0.42	0.59
6	0.38	0.22	0.74	0.40	0.34	4.11	5.59	1.75	0.30	0.30	0.40	0.56
7	0.39	0.22	0.72	0.39	0.34	3.80	5.15	1.62	0.29	0.29	0.46	0.53
8	0.36	0.22	0.69	0.39	0.34	3.52	4.75	1.50	0.29	0.28	0.41	0.50
9	0.35	0.23	0.66	0.39	0.34	3.26	4.38	1.40	0.28	0.27	0.39	0.48
10	0.39	0.23	0.64	0.39	0.34	3.02	4.04	1.30	0.52	0.26	0.38	0.47
11	0.37	0.30	0.62	0.38	0.34	2.80	3.73	1.21	0.41	0.26	0.36	0.44
12	0.35	0.28	0.60	0.38	0.34	2.60	3.45	1.19	0.39	0.25	0.35	0.42
13	0.33	0.28	0.59	0.38	0.34	2.42	3.34	1.09	0.38	0.25	0.33	0.65
14	0.32	0.28	0.57	0.38	0.33	2.25	3.15	1.03	0.36	0.25	0.32	0.54
15	0.30	0.29	0.55	0.37	0.33	2.09	2.89	0.96	0.35	0.25	0.31	0.51
16	0.29	0.30	0.54	0.37	0.33	1.95	2.68	0.90	0.33	0.24	0.30	0.48
17	0.28	0.31	0.53	0.37	0.33	1.81	2.51	0.84	0.32	0.24	0.29	0.46
18	0.27	1.59	0.52	0.37	0.33	1.69	2.31	0.79	0.31	0.23	0.28	0.44
19	0.27	2.06	0.50	0.37	0.33	1.58	2.14	0.74	0.30	0.23	0.28	0.42
20	0.25	1.63	0.49	0.36	0.33	1.86	2.00	0.69	0.29	0.22	0.27	0.40
21	0.25	1.53	0.48	0.36	0.33	2.27	2.76	0.65	0.29	0.22	0.26	0.40
22	0.24	1.44	0.48	0.36	0.33	2.55	3.34	0.61	0.28	0.22	0.26	0.38
23	0.23	1.36	0.47	0.36	0.33	3.24	2.79	0.58	0.27	0.21	0.33	0.36
24	0.22	1.29	0.46	0.36	0.32	5.47	3.58	0.55	0.26	0.21	1.13	0.35
25	0.25	1.22	0.45	0.36	0.32	5.90	3.54	0.52	0.26	1.06	0.79	0.34
26	0.23	1.16	0.45	0.36	0.32	4.85	3.24	0.49	0.25	0.72	0.74	0.33
27	0.24	1.10	0.44	0.35	0.32	4.48	2.94	0.47	0.24	0.67	0.70	0.32
28	0.22	1.05	0.43	0.35	0.32	4.15	3.24	0.44	0.24	0.63	0.66	0.31
29	0.22	1.01	0.43	0.35	0.0	6.51	3.03	0.42	0.23	0.60	0.62	0.30
30	0.21	0.96	0.42	0.35	0.0	5.33	2.72	0.40	0.43	0.57	0.59	0.29
31	0.21	0.0	0.42	0.35	0.0	7.82	0.0	0.38	0.0	0.54	0.56	0.0
TOT	9.27	21.61	18.13	11.63	9.35	101.96	118.10	33.48	9.59	11.13	14.10	13.91

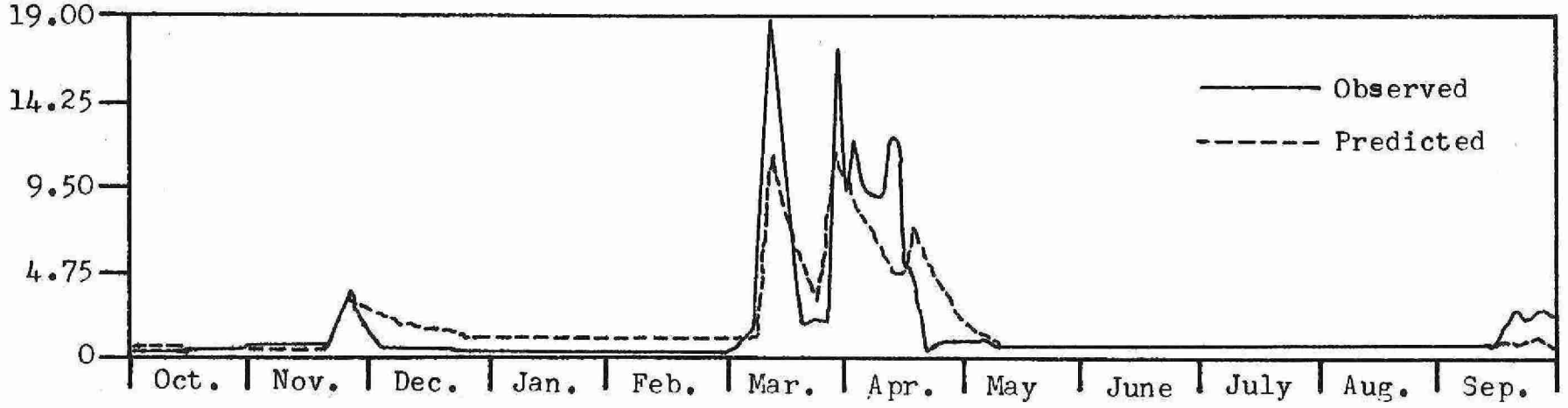
TOTAL FOR WATER YEAR = 372.26



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - CHUB LAKE #2

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.61	0.33	2.58	0.83	0.63	0.52	9.53	0.95	0.71	0.19	0.53	0.29
2	0.57	0.34	2.41	0.82	0.63	0.52	8.59	0.87	0.68	0.18	0.49	0.28
3	0.54	0.36	2.25	0.81	0.62	0.52	7.89	0.79	0.63	0.18	0.46	0.26
4	0.51	0.37	2.11	0.80	0.62	0.51	7.13	0.73	0.58	0.17	0.53	0.25
5	0.48	0.39	1.98	0.79	0.61	0.51	6.45	0.67	0.53	0.37	0.74	0.24
6	0.85	0.41	1.87	0.78	0.61	0.51	5.82	0.61	0.49	0.37	0.70	0.23
7	0.81	0.43	1.76	0.77	0.61	0.50	5.25	0.56	0.45	0.35	0.64	0.22
8	0.75	0.44	1.67	0.76	0.60	0.50	4.73	0.52	0.42	0.32	0.59	0.22
9	0.70	0.46	1.58	0.75	0.60	0.50	4.27	0.48	0.39	0.30	0.66	0.28
10	0.65	0.48	1.51	0.75	0.59	0.89	3.89	0.44	0.36	0.29	0.61	0.27
11	0.61	0.50	1.44	0.74	0.59	1.43	4.10	0.41	0.34	0.27	0.56	0.26
12	0.57	0.52	1.38	0.73	0.59	6.24	6.62	0.38	0.32	0.26	0.52	0.25
13	0.54	0.54	1.32	0.73	0.58	9.02	6.16	0.35	0.30	0.24	0.48	0.24
14	0.50	0.56	1.27	0.72	0.58	9.42	5.56	0.33	0.28	0.23	0.45	0.23
15	0.49	0.59	1.22	0.71	0.57	11.05	5.01	0.31	0.27	0.22	0.42	0.22
16	0.46	0.61	1.18	0.71	0.57	10.07	4.52	0.29	0.26	0.21	0.48	0.22
17	0.44	0.63	1.14	0.70	0.57	9.09	4.08	0.27	0.25	0.20	0.46	0.21
18	0.41	0.65	1.10	0.70	0.56	8.20	3.68	0.26	0.24	0.20	0.42	0.20
19	0.40	0.80	1.07	0.69	0.56	7.41	3.32	0.24	0.23	0.19	0.40	0.20
20	0.38	0.82	1.04	0.69	0.56	6.70	2.99	0.23	0.22	0.18	0.37	0.71
21	0.47	0.83	1.02	0.68	0.55	6.05	2.71	0.22	0.21	0.18	0.54	0.69
22	0.51	0.83	0.99	0.68	0.55	5.48	2.44	0.21	0.20	0.17	0.51	0.63
23	0.49	0.84	0.97	0.67	0.54	4.96	2.20	0.20	0.19	0.17	0.48	0.59
24	0.46	0.85	0.95	0.67	0.54	4.50	1.99	0.19	0.18	0.22	0.44	0.54
25	0.44	1.12	0.93	0.66	0.54	4.08	1.79	0.18	0.18	0.22	0.41	0.63
26	0.41	1.13	0.91	0.66	0.53	3.71	1.62	0.18	0.17	0.21	0.39	1.13
27	0.40	3.26	0.89	0.65	0.53	3.68	1.46	0.17	0.17	0.20	0.36	1.07
28	0.38	3.15	0.88	0.65	0.53	6.53	1.31	0.17	0.21	0.19	0.34	0.99
29	0.36	2.94	0.86	0.64	0.0	7.43	1.18	0.17	0.21	0.19	0.32	0.94
30	0.35	2.75	0.85	0.64	0.0	11.29	1.06	0.16	0.20	0.18	0.30	0.86
31	0.34	0.0	0.84	0.63	0.0	10.56	0.0	0.16	0.0	0.55	0.31	0.0
TOT	15.87	27.94	41.96	22.20	16.16	152.39	127.34	11.71	9.85	7.41	14.93	13.37

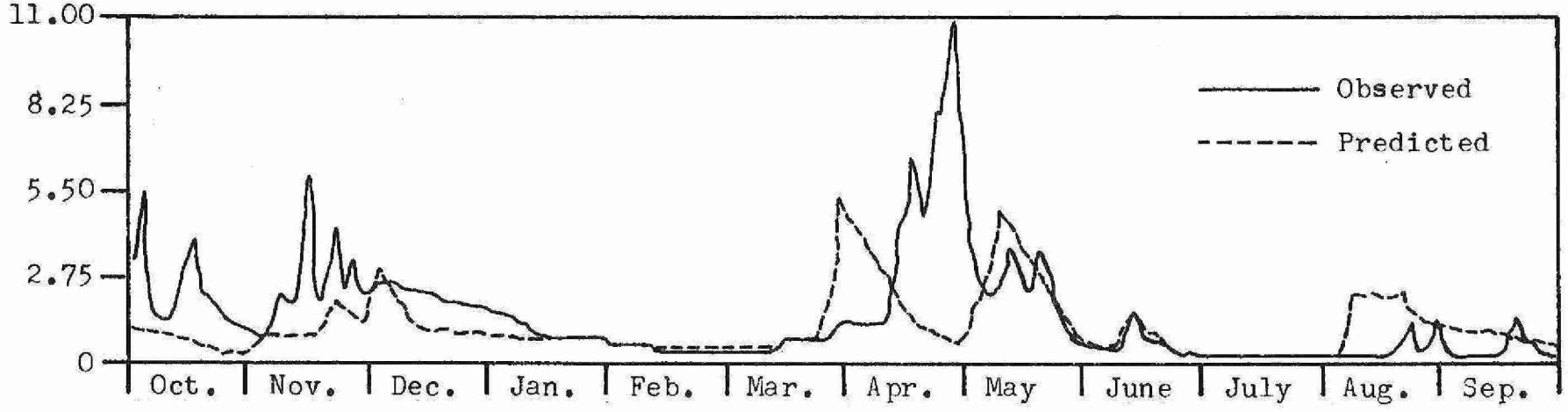
TOTAL FOR WATER YEAR = 461.14



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - CHUB LAKE #2

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	1.05	0.26	3.14	0.75	0.55	0.46	5.32	0.53	0.65	0.43	0.53	1.28
2	0.98	0.27	2.98	0.74	0.55	0.45	4.94	0.52	0.60	0.41	0.59	1.19
3	0.89	0.57	2.76	0.73	0.54	0.45	4.46	0.48	0.56	0.39	0.56	1.10
4	0.82	0.58	2.55	0.72	0.54	0.45	4.03	0.45	0.57	0.37	0.52	1.01
5	0.76	0.56	2.37	0.71	0.53	0.44	3.68	0.48	0.53	0.35	0.49	0.94
6	0.70	0.55	2.20	0.70	0.53	0.44	3.33	1.46	0.50	0.33	0.46	0.87
7	0.64	0.58	2.05	0.69	0.53	0.44	3.01	1.68	0.51	0.32	0.43	0.81
8	0.89	0.58	1.92	0.68	0.52	0.44	2.72	2.84	0.48	0.31	0.41	0.75
9	0.84	0.57	1.80	0.67	0.52	0.43	2.46	5.18	0.45	0.30	0.39	0.73
10	0.78	0.57	1.69	0.66	0.52	0.43	2.23	4.96	0.42	0.29	0.37	0.91
11	0.78	0.57	1.59	0.66	0.51	0.43	2.02	4.49	0.40	0.28	0.37	0.93
12	0.73	0.57	1.50	0.65	0.51	0.42	1.86	4.09	1.32	0.27	0.35	0.86
13	0.68	0.57	1.42	0.64	0.51	0.42	1.70	3.72	1.27	0.27	0.34	0.80
14	0.63	0.58	1.35	0.64	0.50	0.42	1.56	3.40	1.16	0.26	0.32	0.95
15	0.66	0.58	1.28	0.63	0.50	0.42	1.42	3.07	1.06	0.26	2.13	0.89
16	0.62	1.77	1.22	0.62	0.50	0.41	1.29	2.78	0.97	0.25	2.43	0.86
17	0.58	1.81	1.17	0.62	0.49	0.41	1.17	2.51	0.89	0.24	2.23	0.80
18	0.54	1.71	1.12	0.61	0.49	0.41	1.06	2.28	0.82	0.24	2.04	0.77
19	0.50	1.61	1.07	0.61	0.49	0.41	1.19	2.06	0.76	0.23	2.30	0.72
20	0.47	1.53	1.03	0.60	0.48	0.40	1.11	1.87	0.70	0.38	2.12	1.26
21	0.44	1.52	1.00	0.60	0.48	0.40	1.01	1.70	0.65	0.37	1.92	1.20
22	0.41	1.46	0.96	0.59	0.48	0.40	0.91	1.55	0.60	0.40	1.75	1.11
23	0.39	1.40	0.93	0.59	0.47	0.39	0.83	1.41	0.56	0.38	2.37	1.03
24	0.37	1.34	0.91	0.58	0.47	0.39	0.76	1.28	0.52	0.36	2.24	0.95
25	0.35	1.30	0.88	0.58	0.47	0.39	0.74	1.17	0.49	0.34	2.04	0.89
26	0.33	1.25	0.86	0.57	0.46	0.39	0.71	1.07	0.46	0.34	1.86	0.83
27	0.32	1.22	0.84	0.57	0.46	0.38	0.70	0.98	0.53	0.32	1.87	0.83
28	0.30	1.19	0.82	0.57	0.46	0.38	0.67	0.90	0.50	0.33	1.79	0.78
29	0.29	1.16	0.80	0.56	0.0	0.38	0.65	0.82	0.49	0.63	1.64	0.77
30	0.28	1.14	0.78	0.56	0.0	0.38	0.60	0.76	0.46	0.61	1.50	0.85
31	0.27	0.0	0.77	0.55	0.0	2.05	0.0	0.70	0.0	0.57	1.38	0.0
TOT	18.29	29.37	45.75	19.63	14.06	14.51	58.12	61.19	19.88	10.81	39.75	27.65

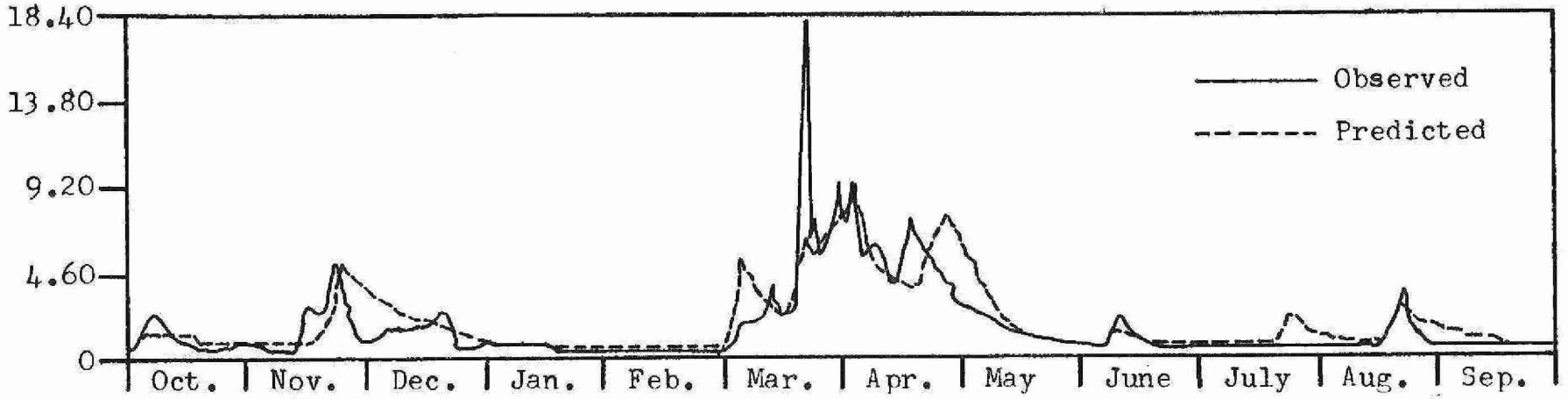
TOTAL FOR WATER YEAR = 359.01



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - CHUB LAKE #2

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.80	0.47	2.52	1.16	0.92	0.76	7.52	5.73	0.53	0.90	1.27	1.36
2	0.75	0.49	2.39	1.15	0.91	0.76	9.61	5.17	0.51	0.84	1.18	1.99
3	1.31	0.51	2.28	1.14	0.90	0.75	8.80	4.79	0.49	0.79	1.09	1.87
4	1.25	0.53	2.17	1.13	0.90	3.84	7.94	4.34	0.47	0.74	1.01	1.72
5	1.15	0.55	2.08	1.12	0.89	6.00	7.17	3.93	0.45	0.69	0.94	1.58
6	1.14	0.57	2.00	1.11	0.89	5.55	6.47	3.59	0.44	0.66	0.88	1.46
7	1.15	0.59	1.92	1.10	0.88	5.06	5.85	3.26	0.42	0.62	1.03	1.35
8	1.07	0.61	1.85	1.09	0.87	4.61	5.28	2.96	0.41	0.59	0.97	1.25
9	1.01	0.64	1.78	1.08	0.87	4.21	4.78	2.69	0.40	0.56	0.90	1.16
10	1.09	0.66	1.73	1.07	0.86	3.85	4.32	2.44	0.98	0.54	0.85	1.10
11	1.08	0.86	1.67	1.06	0.86	3.52	3.91	2.23	0.95	0.51	0.79	1.03
12	1.01	0.88	1.63	1.05	0.85	3.23	3.54	2.19	0.88	0.49	0.75	0.96
13	0.94	0.89	1.58	1.05	0.85	2.97	3.57	2.01	0.82	0.48	0.71	1.49
14	0.88	0.90	1.54	1.04	0.84	2.73	3.55	1.86	0.77	0.49	0.67	1.41
15	0.82	0.92	1.50	1.03	0.84	2.52	3.30	1.71	0.72	0.49	0.63	1.30
16	0.77	0.96	1.47	1.02	0.83	2.33	3.05	1.56	0.68	0.47	0.60	1.21
17	0.72	1.01	1.44	1.02	0.82	2.16	2.86	1.44	0.64	0.46	0.58	1.13
18	0.68	3.33	1.41	1.01	0.82	2.00	2.63	1.32	0.61	0.44	0.55	1.05
19	0.66	5.07	1.38	1.00	0.81	1.86	2.40	1.22	0.58	0.43	0.53	0.98
20	0.63	4.82	1.36	0.99	0.81	2.05	2.25	1.13	0.55	0.42	0.51	0.92
21	0.60	4.47	1.33	0.99	0.80	2.46	3.91	1.04	0.55	0.41	0.49	0.90
22	0.57	4.15	1.31	0.98	0.80	2.83	5.81	0.97	0.53	0.40	0.47	0.85
23	0.55	3.87	1.29	0.97	0.79	3.52	5.51	0.90	0.51	0.39	0.66	0.80
24	0.52	3.62	1.27	0.97	0.79	5.57	7.04	0.84	0.49	0.38	2.50	0.76
25	0.59	3.40	1.26	0.96	0.78	6.61	7.72	0.79	0.47	2.19	2.41	0.72
26	0.57	3.20	1.24	0.95	0.78	6.06	7.41	0.74	0.45	2.11	2.20	0.69
27	0.59	3.03	1.23	0.95	0.77	5.50	6.70	0.69	0.44	1.93	2.01	0.66
28	0.56	2.88	1.21	0.94	0.77	5.00	7.20	0.65	0.43	1.77	1.84	0.63
29	0.54	2.74	1.20	0.93	0.0	6.73	7.05	0.62	0.41	1.62	1.69	0.60
30	0.51	2.62	1.18	0.93	0.0	6.36	6.36	0.59	0.88	1.49	1.56	0.58
31	0.49	0.0	1.17	0.92	0.0	8.19	0.0	0.56	0.0	1.37	1.44	0.0
TOT	25.03	59.24	49.40	31.90	23.50	119.60	163.50	63.96	17.49	25.65	33.72	33.52

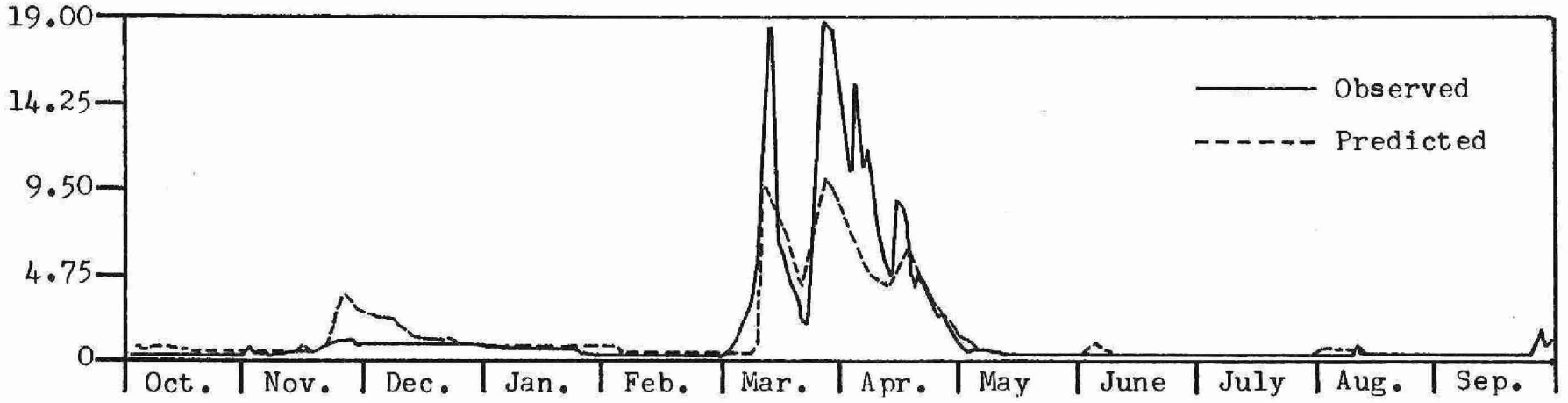
TOTAL FOR WATER YEAR = 646.51



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIDS - RED CHALK #1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.66	0.36	2.43	0.78	0.59	0.49	9.46	1.10	0.56	0.22	0.52	0.32
2	0.62	0.37	2.27	0.77	0.59	0.49	8.59	1.01	0.66	0.21	0.48	0.30
3	0.59	0.39	2.13	0.76	0.58	0.49	7.90	0.93	0.62	0.21	0.45	0.29
4	0.56	0.40	2.00	0.75	0.58	0.49	7.22	0.86	0.57	0.20	0.49	0.28
5	0.53	0.41	1.89	0.74	0.57	0.48	6.57	0.79	0.53	0.33	0.65	0.27
6	0.77	0.43	1.78	0.73	0.57	0.48	5.97	0.73	0.50	0.37	0.67	0.26
7	0.82	0.44	1.69	0.72	0.57	0.48	5.43	0.68	0.47	0.35	0.62	0.25
8	0.77	0.45	1.60	0.71	0.56	0.47	4.93	0.63	0.44	0.33	0.58	0.24
9	0.72	0.47	1.52	0.71	0.56	0.47	4.48	0.58	0.41	0.32	0.62	0.28
10	0.68	0.48	1.45	0.70	0.56	0.75	4.10	0.54	0.39	0.30	0.60	0.29
11	0.64	0.50	1.38	0.69	0.55	1.22	4.13	0.50	0.36	0.29	0.56	0.28
12	0.60	0.51	1.32	0.69	0.55	4.82	5.92	0.47	0.34	0.28	0.52	0.27
13	0.57	0.53	1.27	0.68	0.55	7.89	6.13	0.44	0.33	0.26	0.49	0.26
14	0.54	0.54	1.22	0.67	0.54	8.78	5.58	0.41	0.31	0.25	0.46	0.25
15	0.52	0.56	1.17	0.67	0.54	10.08	5.07	0.39	0.30	0.24	0.43	0.25
16	0.50	0.58	1.13	0.66	0.54	9.78	4.60	0.36	0.29	0.24	0.47	0.24
17	0.48	0.60	1.09	0.66	0.53	8.88	4.18	0.34	0.28	0.23	0.47	0.24
18	0.46	0.61	1.06	0.65	0.53	8.08	3.80	0.33	0.27	0.22	0.44	0.23
19	0.44	0.71	1.03	0.65	0.53	7.35	3.46	0.31	0.26	0.21	0.41	0.22
20	0.42	0.76	1.00	0.64	0.52	6.69	3.15	0.29	0.25	0.21	0.39	0.57
21	0.48	0.76	0.97	0.64	0.52	6.09	2.86	0.28	0.24	0.20	0.50	0.66
22	0.52	0.77	0.94	0.63	0.52	5.55	2.60	0.27	0.23	0.20	0.52	0.61
23	0.51	0.78	0.92	0.63	0.51	5.06	2.37	0.26	0.22	0.19	0.48	0.57
24	0.49	0.78	0.90	0.62	0.51	4.62	2.16	0.24	0.22	0.23	0.46	0.54
25	0.47	0.96	0.88	0.62	0.51	4.21	1.96	0.24	0.21	0.24	0.43	0.59
26	0.45	1.03	0.86	0.61	0.50	3.85	1.78	0.23	0.20	0.23	0.40	0.94
27	0.43	2.53	0.85	0.61	0.50	3.74	1.62	0.22	0.20	0.22	0.38	1.01
28	0.41	2.93	0.83	0.61	0.50	5.79	1.47	0.22	0.22	0.22	0.36	0.94
29	0.40	2.74	0.82	0.60	0.0	7.06	1.34	0.21	0.23	0.21	0.35	0.90
30	0.39	2.58	0.80	0.60	0.0	10.04	1.22	0.20	0.22	0.20	0.33	0.84
31	0.37	0.0	0.79	0.59	0.0	10.37	0.0	0.20	0.0	0.45	0.33	0.0
TOT	16.78	25.97	39.97	20.77	15.16	145.03	130.07	14.26	10.31	7.87	14.88	13.21

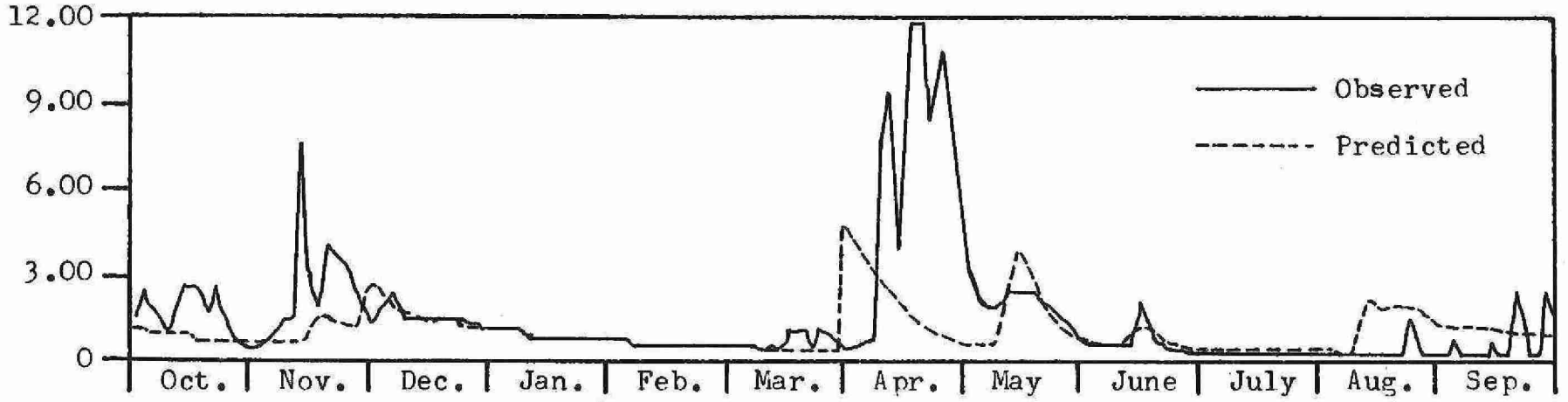
TOTAL FOR WATER YEAR = 454.28



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - RED CHALK #1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.95	0.29	2.50	0.72	0.51	0.43	4.29	0.56	0.65	0.46	0.53	1.26
2	0.94	0.30	2.83	0.70	0.51	0.43	4.74	0.54	0.61	0.44	0.57	1.18
3	0.87	0.50	2.63	0.69	0.51	0.42	4.31	0.51	0.57	0.42	0.56	1.10
4	0.81	0.56	2.44	0.68	0.50	0.42	3.92	0.48	0.57	0.40	0.53	1.03
5	0.75	0.55	2.27	0.67	0.50	0.42	3.59	0.48	0.55	0.38	0.50	0.96
6	0.70	0.54	2.12	0.66	0.50	0.42	3.28	1.14	0.52	0.37	0.47	0.90
7	0.65	0.56	1.98	0.65	0.49	0.41	2.99	1.49	0.52	0.36	0.45	0.84
8	0.80	0.56	1.86	0.64	0.49	0.41	2.72	2.29	0.50	0.34	0.43	0.79
9	0.82	0.56	1.74	0.63	0.49	0.41	2.48	3.72	0.47	0.33	0.41	0.76
10	0.77	0.55	1.64	0.62	0.48	0.41	2.26	3.96	0.45	0.32	0.39	0.87
11	0.75	0.55	1.55	0.62	0.48	0.40	2.07	3.64	0.43	0.31	0.39	0.91
12	0.72	0.55	1.46	0.61	0.48	0.40	1.91	3.35	1.04	0.30	0.38	0.87
13	0.68	0.55	1.38	0.60	0.47	0.40	1.75	3.07	1.20	0.30	0.36	0.82
14	0.63	0.55	1.31	0.60	0.47	0.40	1.62	2.83	1.11	0.30	0.35	0.90
15	0.64	0.56	1.25	0.59	0.47	0.39	1.48	2.59	1.03	0.29	1.56	0.89
16	0.62	1.36	1.19	0.58	0.46	0.39	1.35	2.37	0.95	0.29	2.13	0.86
17	0.58	1.65	1.14	0.58	0.46	0.39	1.24	2.16	0.88	0.28	2.05	0.81
18	0.55	1.59	1.09	0.57	0.46	0.39	1.13	1.98	0.82	0.27	1.89	0.78
19	0.52	1.49	1.05	0.57	0.46	0.38	1.18	1.81	0.76	0.27	2.02	0.74
20	0.49	1.42	1.01	0.56	0.45	0.38	1.14	1.66	0.71	0.36	1.96	1.07
21	0.46	1.40	0.97	0.56	0.45	0.38	1.05	1.52	0.67	0.39	1.80	1.14
22	0.44	1.36	0.93	0.55	0.45	0.38	0.96	1.40	0.62	0.40	1.66	1.07
23	0.42	1.30	0.90	0.55	0.44	0.37	0.88	1.29	0.59	0.39	2.04	1.00
24	0.40	1.25	0.88	0.54	0.44	0.37	0.81	1.18	0.55	0.38	2.09	0.94
25	0.38	1.21	0.85	0.54	0.44	0.37	0.77	1.09	0.52	0.36	1.92	0.88
26	0.36	1.17	0.83	0.54	0.44	0.37	0.74	1.01	0.49	0.36	1.77	0.83
27	0.35	1.14	0.80	0.53	0.43	0.37	0.72	0.93	0.53	0.35	1.74	0.82
28	0.34	1.11	0.78	0.53	0.43	0.36	0.69	0.86	0.53	0.35	1.70	0.79
29	0.32	1.08	0.77	0.52	0.0	0.36	0.67	0.80	0.51	0.55	1.58	0.76
30	0.31	1.06	0.75	0.52	0.0	0.36	0.62	0.75	0.49	0.60	1.46	0.81
31	0.30	0.0	0.73	0.52	0.0	1.57	0.0	0.70	0.0	0.56	1.35	0.0
TOT	18.35	27.35	43.63	18.43	13.16	13.34	57.36	52.17	19.84	11.50	37.05	27.36

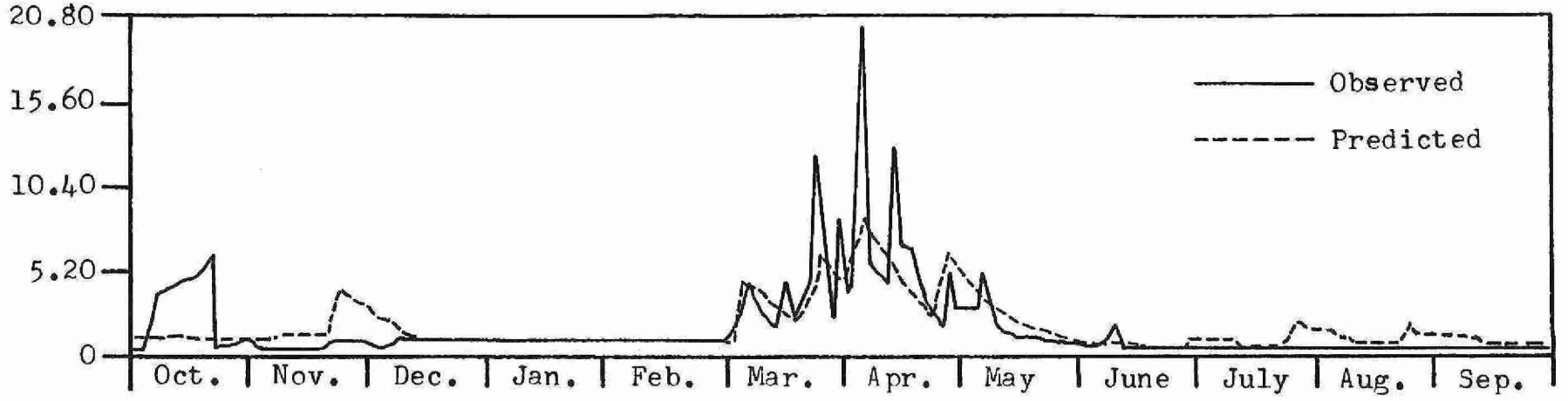
TOTAL FOR WATER YEAR = 339.53



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - RED CHALK #1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.80	0.51	2.38	1.07	0.84	0.71	7.41	5.56	0.64	0.89	1.27	1.37
2	0.76	0.52	2.26	1.06	0.84	0.71	8.77	5.07	0.61	0.85	1.19	1.78
3	1.11	0.53	2.15	1.05	0.83	0.70	8.68	4.70	0.59	0.81	1.11	1.83
4	1.19	0.55	2.06	1.04	0.83	2.93	7.89	4.32	0.56	0.76	1.05	1.70
5	1.11	0.56	1.97	1.03	0.82	5.17	7.17	3.94	0.55	0.73	0.98	1.58
6	1.08	0.58	1.89	1.02	0.82	5.32	6.52	3.62	0.53	0.69	0.93	1.47
7	1.09	0.59	1.81	1.01	0.81	4.87	5.93	3.32	0.51	0.66	1.01	1.37
8	1.04	0.61	1.75	1.00	0.81	4.47	5.40	3.04	0.50	0.63	1.00	1.28
9	0.99	0.63	1.69	0.99	0.80	4.10	4.91	2.79	0.49	0.61	0.94	1.20
10	1.03	0.64	1.63	0.98	0.80	3.77	4.48	2.56	0.86	0.59	0.89	1.14
11	1.04	0.77	1.58	0.98	0.79	3.47	4.08	2.35	0.96	0.57	0.84	1.08
12	1.00	0.83	1.53	0.97	0.79	3.20	3.72	2.27	0.90	0.55	0.80	1.02
13	0.94	0.84	1.49	0.96	0.78	2.96	3.64	2.13	0.85	0.53	0.76	1.35
14	0.88	0.84	1.45	0.95	0.78	2.73	3.61	1.98	0.81	0.53	0.73	1.41
15	0.83	0.85	1.41	0.95	0.77	2.53	3.40	1.83	0.77	0.54	0.69	1.32
16	0.79	0.88	1.38	0.94	0.77	2.35	3.16	1.69	0.73	0.53	0.67	1.24
17	0.74	0.92	1.35	0.93	0.76	2.18	2.96	1.57	0.69	0.51	0.64	1.16
18	0.71	2.52	1.32	0.93	0.76	2.03	2.74	1.45	0.66	0.50	0.62	1.09
19	0.69	4.23	1.29	0.92	0.76	1.90	2.52	1.35	0.64	0.48	0.59	1.03
20	0.66	4.42	1.27	0.91	0.75	2.00	2.35	1.26	0.61	0.47	0.57	0.98
21	0.63	4.12	1.24	0.91	0.75	2.33	3.44	1.17	0.60	0.46	0.56	0.95
22	0.61	3.84	1.22	0.90	0.74	2.68	5.08	1.10	0.59	0.45	0.54	0.91
23	0.58	3.60	1.20	0.90	0.74	3.25	5.26	1.03	0.57	0.44	0.66	0.86
24	0.56	3.38	1.18	0.89	0.73	4.88	6.22	0.97	0.55	0.44	1.94	0.82
25	0.60	3.19	1.17	0.88	0.73	6.09	7.02	0.91	0.53	1.66	2.27	0.79
26	0.60	3.01	1.15	0.88	0.72	5.92	6.94	0.86	0.51	1.99	2.10	0.75
27	0.61	2.85	1.13	0.87	0.72	5.41	6.40	0.81	0.50	1.84	1.94	0.72
28	0.59	2.71	1.12	0.87	0.71	4.95	6.60	0.77	0.49	1.70	1.80	0.70
29	0.57	2.59	1.11	0.86	0.0	6.11	6.62	0.73	0.47	1.58	1.67	0.67
30	0.55	2.48	1.09	0.86	0.0	6.24	6.12	0.70	0.78	1.46	1.55	0.65
31	0.53	0.0	1.08	0.85	0.0	7.48	0.0	0.66	0.0	1.36	1.44	0.0
TOT	24.90	54.60	46.34	29.35	21.77	113.42	159.03	66.47	19.04	25.82	33.77	34.24

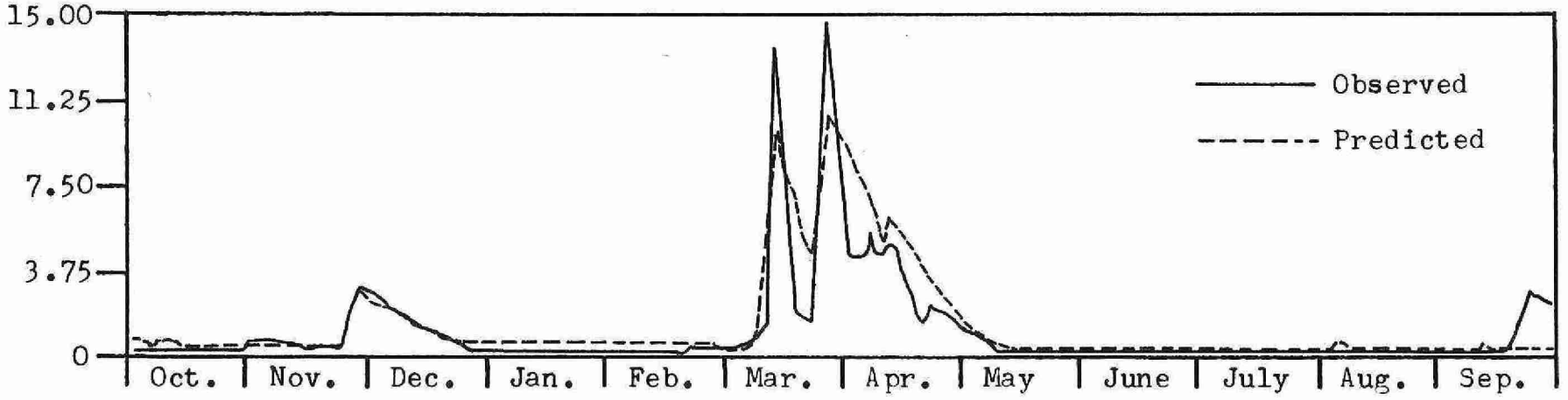
TOTAL FOR WATER YEAR = 628.76



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - RED CHALK #2

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.50	0.25	1.92	0.67	0.49	0.42	8.46	1.22	0.58	0.16	0.32	0.22
2	0.47	0.26	1.81	0.66	0.49	0.42	7.79	1.13	0.47	0.15	0.31	0.21
3	0.45	0.27	1.72	0.65	0.49	0.42	7.30	1.05	0.44	0.15	0.29	0.20
4	0.43	0.28	1.63	0.64	0.48	0.41	6.71	0.97	0.41	0.14	0.34	0.19
5	0.40	0.29	1.55	0.63	0.48	0.41	6.20	0.90	0.39	0.28	0.46	0.19
6	0.67	0.30	1.47	0.62	0.48	0.41	5.71	0.84	0.37	0.24	0.41	0.18
7	0.58	0.31	1.40	0.61	0.48	0.41	5.26	0.78	0.35	0.23	0.38	0.17
8	0.55	0.33	1.34	0.60	0.47	0.40	4.85	0.72	0.33	0.22	0.36	0.17
9	0.52	0.34	1.28	0.60	0.47	0.40	4.47	0.67	0.31	0.21	0.42	0.21
10	0.49	0.35	1.23	0.59	0.47	0.78	4.15	0.63	0.29	0.20	0.38	0.19
11	0.46	0.36	1.18	0.58	0.46	1.24	4.26	0.59	0.28	0.19	0.36	0.19
12	0.44	0.38	1.13	0.58	0.46	6.03	6.32	0.55	0.26	0.19	0.34	0.18
13	0.41	0.39	1.09	0.57	0.46	7.84	5.42	0.51	0.25	0.18	0.32	0.18
14	0.39	0.40	1.05	0.57	0.46	7.77	4.99	0.48	0.24	0.17	0.30	0.17
15	0.38	0.42	1.01	0.56	0.45	9.49	4.60	0.45	0.23	0.17	0.29	0.17
16	0.36	0.44	0.98	0.56	0.45	8.27	4.24	0.42	0.22	0.16	0.34	0.16
17	0.34	0.45	0.94	0.55	0.45	7.63	3.91	0.39	0.21	0.16	0.31	0.16
18	0.33	0.46	0.92	0.55	0.45	7.04	3.60	0.37	0.20	0.15	0.29	0.15
19	0.31	0.57	0.89	0.54	0.44	6.50	3.32	0.35	0.20	0.15	0.28	0.15
20	0.30	0.56	0.86	0.54	0.44	6.01	3.06	0.33	0.19	0.15	0.26	0.50
21	0.36	0.57	0.84	0.53	0.44	5.55	2.82	0.31	0.18	0.14	0.38	0.41
22	0.37	0.58	0.82	0.53	0.44	5.13	2.60	0.29	0.17	0.14	0.34	0.38
23	0.34	0.59	0.80	0.53	0.43	4.74	2.39	0.28	0.17	0.14	0.32	0.36
24	0.33	0.60	0.78	0.52	0.43	4.39	2.20	0.26	0.16	0.17	0.30	0.34
25	0.32	0.79	0.76	0.52	0.43	4.06	2.03	0.25	0.16	0.16	0.29	0.41
26	0.30	0.76	0.74	0.51	0.43	3.76	1.87	0.24	0.15	0.16	0.27	0.73
27	0.29	2.73	0.73	0.51	0.43	3.80	1.72	0.23	0.15	0.15	0.26	0.61
28	0.28	2.23	0.71	0.51	0.42	6.67	1.58	0.22	0.18	0.15	0.25	0.58
29	0.27	2.12	0.70	0.50	0.0	6.95	1.45	0.21	0.17	0.14	0.24	0.56
30	0.26	2.01	0.69	0.50	0.0	10.74	1.33	0.20	0.16	0.14	0.23	0.52
31	0.25	0.0	0.68	0.50	0.0	9.21	0.0	0.19	0.0	0.39	0.23	0.0
TOT	12.16	20.34	33.64	17.51	12.79	137.32	124.62	16.03	7.86	5.54	9.85	8.83

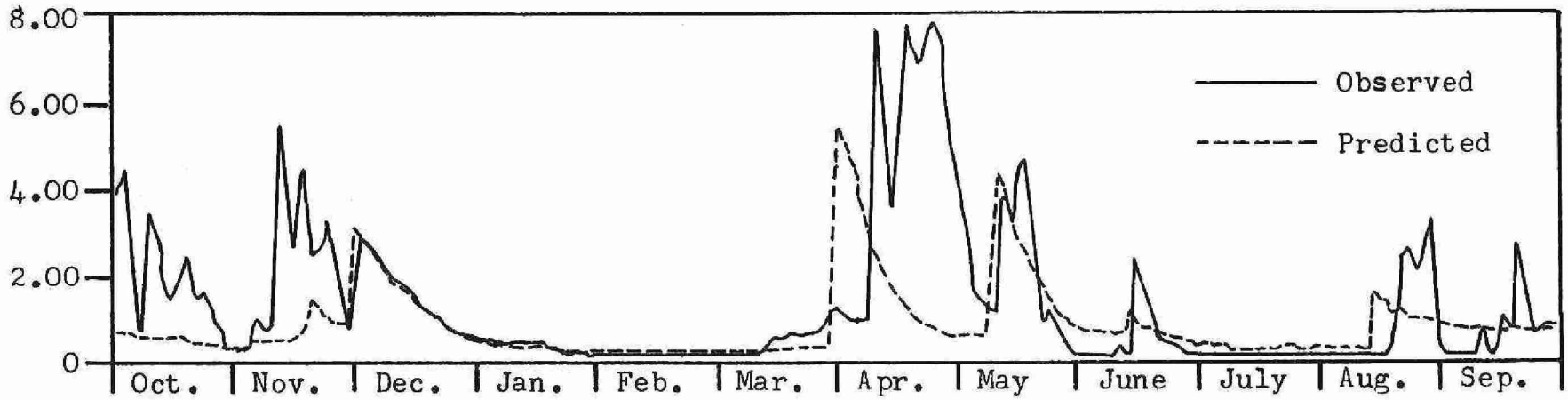
TOTAL FOR WATER YEAR = 406.54



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - RED CHALK #2

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.65	0.20	2.84	0.60	0.40	0.34	4.94	0.52	0.65	0.33	0.32	0.86
2	0.58	0.20	2.26	0.59	0.40	0.34	3.90	0.50	0.60	0.31	0.37	0.81
3	0.54	0.41	2.12	0.57	0.40	0.33	3.60	0.47	0.56	0.30	0.34	0.76
4	0.51	0.37	1.99	0.56	0.39	0.33	3.32	0.44	0.56	0.28	0.32	0.71
5	0.48	0.36	1.87	0.55	0.39	0.33	3.09	0.45	0.52	0.27	0.30	0.66
6	0.45	0.36	1.76	0.54	0.39	0.33	2.85	1.13	0.49	0.26	0.29	0.62
7	0.42	0.39	1.66	0.53	0.39	0.33	2.63	1.12	0.49	0.25	0.28	0.59
8	0.59	0.38	1.56	0.52	0.38	0.33	2.43	1.95	0.45	0.24	0.26	0.55
9	0.52	0.38	1.48	0.51	0.38	0.32	2.24	4.14	0.43	0.23	0.25	0.54
10	0.49	0.38	1.40	0.50	0.38	0.32	2.07	3.45	0.40	0.22	0.24	0.65
11	0.50	0.39	1.32	0.50	0.36	0.32	1.92	3.17	0.38	0.21	0.24	0.63
12	0.47	0.39	1.25	0.49	0.37	0.32	1.79	2.95	1.06	0.20	0.23	0.58
13	0.44	0.39	1.19	0.48	0.37	0.32	1.66	2.73	0.86	0.20	0.22	0.55
14	0.42	0.40	1.13	0.48	0.37	0.32	1.54	2.54	0.80	0.19	0.21	0.65
15	0.44	0.40	1.08	0.47	0.37	0.31	1.42	2.34	0.74	0.19	1.51	0.59
16	0.41	1.31	1.03	0.47	0.36	0.31	1.32	2.16	0.69	0.18	1.42	0.57
17	0.39	1.13	0.99	0.46	0.36	0.31	1.22	1.99	0.65	0.18	1.27	0.54
18	0.36	1.08	0.94	0.45	0.36	0.31	1.12	1.84	0.60	0.17	1.19	0.51
19	0.34	1.04	0.91	0.45	0.36	0.31	1.19	1.70	0.56	0.17	1.40	0.48
20	0.33	1.00	0.87	0.45	0.36	0.31	1.07	1.58	0.53	0.26	1.24	0.85
21	0.31	1.01	0.84	0.44	0.35	0.30	0.99	1.46	0.50	0.23	1.15	0.73
22	0.30	0.97	0.81	0.44	0.35	0.30	0.92	1.35	0.47	0.26	1.07	0.68
23	0.28	0.94	0.78	0.43	0.35	0.30	0.85	1.25	0.44	0.24	1.54	0.64
24	0.27	0.91	0.75	0.43	0.35	0.30	0.79	1.16	0.41	0.23	1.35	0.60
25	0.26	0.89	0.73	0.42	0.35	0.30	0.75	1.07	0.39	0.22	1.25	0.57
26	0.25	0.87	0.70	0.42	0.34	0.30	0.71	1.00	0.37	0.22	1.16	0.54
27	0.24	0.85	0.68	0.42	0.34	0.29	0.68	0.92	0.41	0.21	1.20	0.55
28	0.23	0.83	0.66	0.41	0.34	0.29	0.65	0.86	0.38	0.21	1.14	0.51
29	0.22	0.82	0.65	0.41	0.0	0.29	0.62	0.80	0.37	0.42	1.05	0.50
30	0.21	0.80	0.63	0.41	0.0	0.29	0.57	0.74	0.35	0.36	0.98	0.56
31	0.20	0.0	0.61	0.40	0.0	1.98	0.0	0.69	0.0	0.34	0.91	0.0
TOT	12.09	19.83	37.49	14.82	10.33	11.38	52.87	48.45	16.09	7.57	24.71	18.57

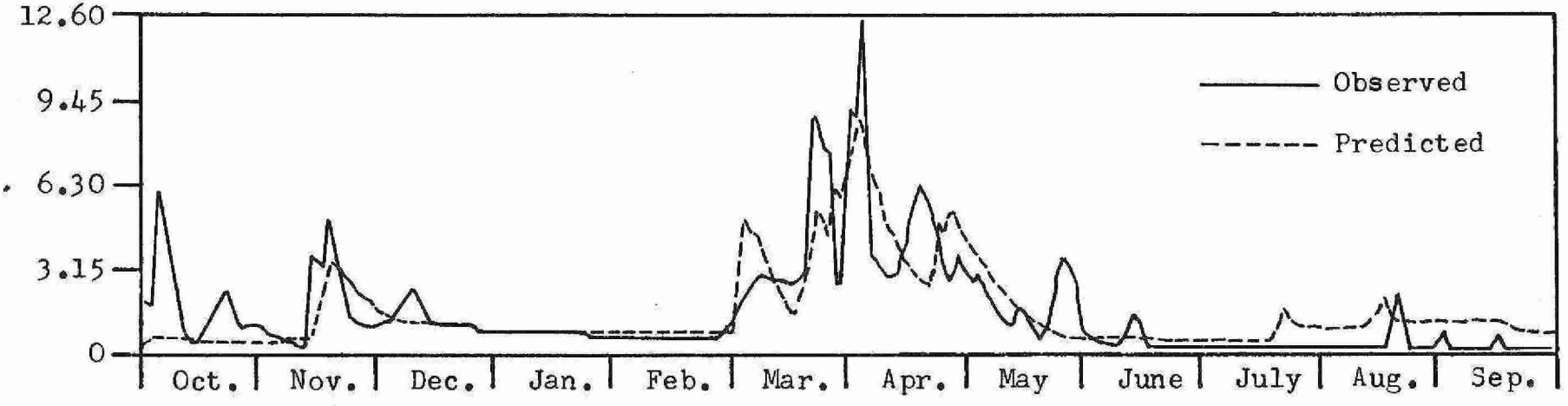
TOTAL FOR WATER YEAR = 274.21



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - RED CHALK #2

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.51	0.31	1.81	0.77	0.59	0.51	6.48	4.47	0.54	0.60	0.89	0.98
2	0.48	0.32	1.73	0.76	0.59	0.51	8.78	4.13	0.51	0.56	0.84	1.47
3	0.88	0.33	1.65	0.75	0.59	0.50	7.57	3.90	0.49	0.54	0.79	1.27
4	0.75	0.34	1.58	0.74	0.58	3.66	6.98	3.58	0.46	0.51	0.74	1.18
5	0.71	0.35	1.51	0.73	0.58	5.18	6.43	3.31	0.44	0.48	0.70	1.11
6	0.71	0.36	1.45	0.72	0.58	4.34	5.93	3.08	0.42	0.46	0.66	1.04
7	0.72	0.37	1.39	0.72	0.57	4.03	5.47	2.85	0.40	0.44	0.77	0.97
8	0.67	0.38	1.34	0.71	0.57	3.74	5.05	2.63	0.39	0.42	0.70	0.91
9	0.64	0.39	1.29	0.70	0.57	3.47	4.65	2.43	0.37	0.40	0.66	0.86
10	0.71	0.40	1.25	0.70	0.56	3.23	4.29	2.25	0.82	0.39	0.62	0.83
11	0.69	0.54	1.21	0.69	0.56	3.01	3.96	2.09	0.69	0.37	0.59	0.78
12	0.65	0.52	1.17	0.68	0.56	2.80	3.66	2.06	0.65	0.36	0.56	0.73
13	0.61	0.53	1.13	0.68	0.56	2.61	3.65	1.89	0.61	0.34	0.53	1.14
14	0.57	0.54	1.10	0.67	0.55	2.43	3.53	1.77	0.58	0.36	0.51	0.99
15	0.54	0.54	1.07	0.67	0.55	2.27	3.27	1.64	0.55	0.35	0.48	0.93
16	0.51	0.57	1.04	0.66	0.55	2.12	3.05	1.53	0.52	0.34	0.46	0.87
17	0.48	0.60	1.01	0.66	0.54	1.99	2.87	1.42	0.49	0.33	0.44	0.82
18	0.46	2.56	0.99	0.65	0.54	1.86	2.66	1.32	0.47	0.32	0.42	0.77
19	0.45	3.61	0.96	0.65	0.54	1.75	2.46	1.23	0.45	0.31	0.40	0.73
20	0.42	3.13	0.94	0.64	0.53	1.96	2.32	1.15	0.43	0.30	0.39	0.69
21	0.41	2.95	0.92	0.64	0.53	2.31	3.65	1.07	0.43	0.29	0.37	0.68
22	0.39	2.78	0.90	0.63	0.53	2.59	4.87	1.00	0.41	0.28	0.36	0.64
23	0.37	2.63	0.89	0.63	0.53	3.22	4.28	0.93	0.39	0.28	0.50	0.61
24	0.36	2.49	0.87	0.63	0.52	5.16	5.63	0.87	0.37	0.27	1.92	0.58
25	0.41	2.36	0.85	0.62	0.52	5.80	5.88	0.82	0.36	1.71	1.53	0.55
26	0.38	2.25	0.84	0.62	0.52	5.08	5.54	0.77	0.35	1.33	1.42	0.52
27	0.39	2.14	0.83	0.61	0.51	4.71	5.04	0.72	0.33	1.24	1.33	0.50
28	0.37	2.05	0.81	0.61	0.51	4.36	5.59	0.68	0.32	1.16	1.24	0.48
29	0.35	1.96	0.80	0.61	0.0	6.25	5.37	0.64	0.31	1.08	1.16	0.46
30	0.34	1.89	0.79	0.60	0.0	5.52	4.86	0.61	0.68	1.01	1.08	0.44
31	0.32	0.0	0.78	0.60	0.0	7.53	0.0	0.57	0.0	0.95	1.01	0.0
TOT	16.24	40.20	34.90	20.76	15.44	104.49	143.77	57.43	14.24	17.77	24.05	24.52

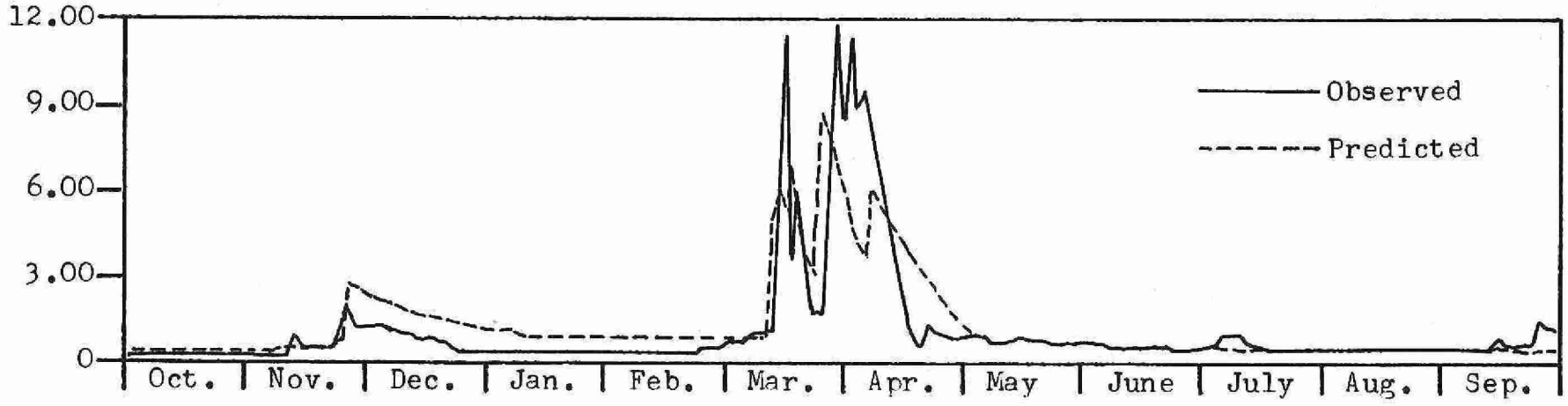
TOTAL FOR WATER YEAR = 513.83



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - RED CHALK #3

DAY	Oct.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.51	0.28	1.98	0.92	0.63	0.50	6.30	1.50	0.68	0.19	0.25	0.21
2	0.49	0.30	1.91	0.91	0.63	0.49	5.93	1.41	0.51	0.18	0.24	0.21
3	0.47	0.32	1.85	0.89	0.62	0.49	5.65	1.33	0.48	0.18	0.23	0.20
4	0.45	0.34	1.79	0.88	0.62	0.49	5.30	1.26	0.46	0.17	0.28	0.20
5	0.43	0.36	1.73	0.87	0.61	0.48	5.01	1.19	0.44	0.29	0.39	0.19
6	0.74	0.38	1.68	0.85	0.61	0.48	4.71	1.12	0.42	0.24	0.32	0.19
7	0.58	0.41	1.63	0.84	0.60	0.48	4.44	1.06	0.40	0.23	0.31	0.18
8	0.55	0.43	1.58	0.83	0.59	0.47	4.18	1.00	0.38	0.22	0.30	0.18
9	0.53	0.45	1.53	0.82	0.59	0.47	3.93	0.95	0.37	0.21	0.35	0.21
10	0.51	0.47	1.49	0.81	0.58	0.57	3.72	0.90	0.35	0.21	0.31	0.19
11	0.48	0.50	1.45	0.80	0.58	0.75	3.93	0.85	0.33	0.20	0.30	0.19
12	0.46	0.52	1.41	0.79	0.57	4.94	6.06	0.80	0.32	0.19	0.29	0.18
13	0.44	0.54	1.37	0.78	0.57	5.70	4.85	0.76	0.31	0.19	0.28	0.18
14	0.42	0.56	1.33	0.77	0.56	5.14	4.56	0.72	0.30	0.18	0.27	0.17
15	0.41	0.59	1.30	0.76	0.56	6.61	4.29	0.68	0.28	0.18	0.26	0.17
16	0.39	0.61	1.27	0.75	0.55	5.53	4.03	0.65	0.28	0.17	0.30	0.17
17	0.38	0.64	1.24	0.74	0.55	5.23	3.79	0.61	0.27	0.17	0.27	0.16
18	0.36	0.66	1.21	0.73	0.55	4.95	3.56	0.58	0.26	0.17	0.26	0.16
19	0.35	0.79	1.18	0.72	0.54	4.68	3.34	0.55	0.25	0.16	0.25	0.16
20	0.34	0.77	1.16	0.72	0.54	4.42	3.14	0.53	0.24	0.16	0.24	0.48
21	0.42	0.79	1.13	0.71	0.53	4.19	2.95	0.50	0.23	0.16	0.35	0.34
22	0.42	0.81	1.11	0.70	0.53	3.96	2.76	0.48	0.22	0.15	0.30	0.32
23	0.38	0.83	1.08	0.69	0.52	3.76	2.59	0.45	0.21	0.15	0.28	0.31
24	0.37	0.84	1.06	0.69	0.52	3.56	2.43	0.43	0.21	0.18	0.27	0.30
25	0.35	1.05	1.04	0.68	0.51	3.37	2.27	0.41	0.20	0.16	0.26	0.37
26	0.34	1.00	1.02	0.67	0.51	3.20	2.13	0.39	0.20	0.16	0.25	0.71
27	0.33	2.85	1.00	0.67	0.51	3.11	1.99	0.38	0.19	0.15	0.25	0.54
28	0.32	2.12	0.99	0.66	0.50	5.54	1.85	0.36	0.21	0.15	0.24	0.52
29	0.31	2.07	0.97	0.65		5.21	1.73	0.34	0.20	0.15	0.23	0.52
30	0.30	2.02	0.95	0.65		8.58	1.61	0.33	0.19	0.15	0.22	0.49
31	0.29		0.94	0.64		6.68		0.32		0.33	0.23	
TOT	13.11	24.32	41.35	23.56	15.80	104.03	113.02	22.86	9.37	5.77	8.59	8.42

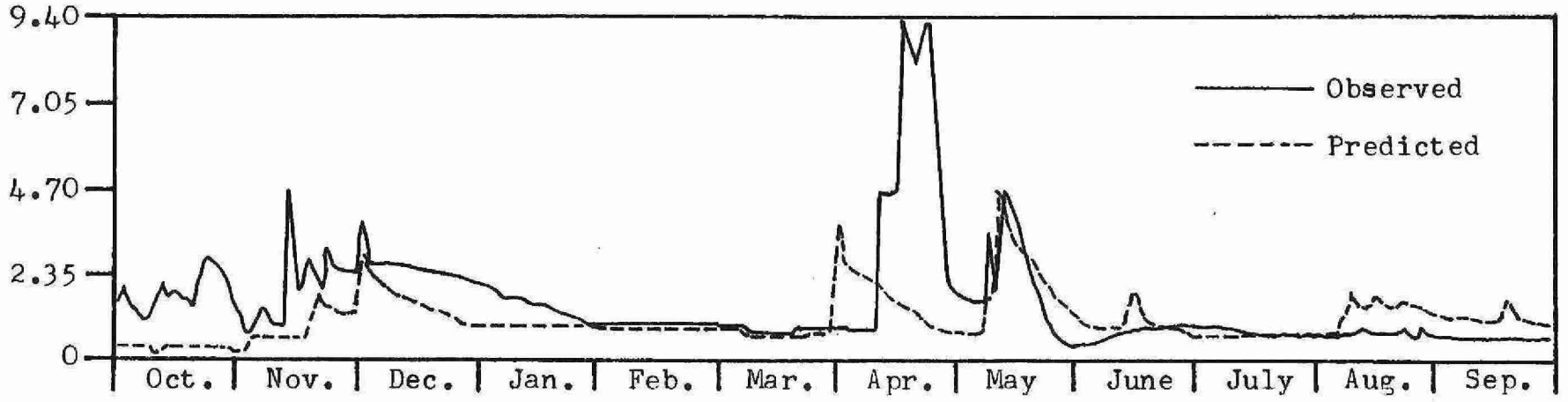
TOTAL FOR WATER YEAR = 390.21



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - RED CHALK #3

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.67	0.26	2.96	0.95	0.62	0.48	3.90	0.57	1.00	0.58	0.40	1.21
2	0.56	0.28	2.23	0.93	0.62	0.48	2.65	0.57	0.94	0.55	0.47	1.15
3	0.53	0.58	2.15	0.91	0.61	0.48	2.50	0.53	0.89	0.52	0.42	1.10
4	0.51	0.48	2.07	0.90	0.60	0.47	2.36	0.51	0.92	0.50	0.40	1.04
5	0.49	0.49	1.99	0.88	0.60	0.47	2.24	0.55	0.85	0.48	0.38	0.99
6	0.46	0.50	1.92	0.87	0.59	0.46	2.11	1.55	0.80	0.46	0.37	0.94
7	0.44	0.55	1.85	0.85	0.59	0.46	1.99	1.42	0.83	0.44	0.35	0.89
8	0.68	0.55	1.79	0.84	0.58	0.46	1.87	2.76	0.76	0.42	0.34	0.85
9	0.56	0.56	1.73	0.83	0.58	0.45	1.77	4.47	0.72	0.40	0.33	0.84
10	0.53	0.58	1.67	0.81	0.57	0.45	1.67	3.54	0.68	0.38	0.32	1.08
11	0.57	0.59	1.62	0.80	0.57	0.45	1.57	3.26	0.65	0.37	0.32	1.02
12	0.53	0.60	1.56	0.79	0.56	0.44	1.50	3.14	1.86	0.35	0.30	0.93
13	0.50	0.62	1.52	0.78	0.56	0.44	1.41	2.97	1.30	0.35	0.29	0.88
14	0.48	0.63	1.47	0.77	0.55	0.44	1.34	2.86	1.23	0.33	0.28	1.13
15	0.54	0.65	1.43	0.76	0.55	0.43	1.26	2.66	1.16	0.32	1.84	0.97
16	0.49	1.85	1.39	0.75	0.54	0.43	1.18	2.51	1.10	0.31	1.54	0.97
17	0.46	1.45	1.35	0.74	0.54	0.43	1.11	2.36	1.04	0.30	1.32	0.90
18	0.44	1.40	1.31	0.73	0.53	0.42	1.05	2.23	0.99	0.29	1.26	0.89
19	0.42	1.38	1.27	0.72	0.53	0.42	1.15	2.10	0.93	0.28	1.66	0.84
20	0.41	1.36	1.24	0.71	0.52	0.42	1.03	1.99	0.89	0.40	1.39	1.67
21	0.39	1.42	1.21	0.70	0.52	0.41	0.97	1.87	0.84	0.33	1.32	1.27
22	0.37	1.38	1.18	0.69	0.51	0.41	0.90	1.76	0.80	0.36	1.25	1.20
23	0.36	1.36	1.15	0.69	0.51	0.41	0.85	1.66	0.76	0.33	2.02	1.15
24	0.34	1.35	1.12	0.68	0.50	0.40	0.80	1.57	0.72	0.32	1.64	1.09
25	0.33	1.34	1.10	0.67	0.50	0.40	0.78	1.48	0.68	0.31	1.54	1.04
26	0.32	1.33	1.07	0.66	0.50	0.40	0.75	1.40	0.65	0.31	1.45	0.98
27	0.31	1.32	1.05	0.66	0.49	0.39	0.73	1.32	0.74	0.29	1.58	1.04
28	0.29	1.31	1.03	0.65	0.49	0.39	0.71	1.25	0.66	0.30	1.52	0.95
29	0.28	1.31	1.01	0.64	0.0	0.39	0.68	1.18	0.64	0.56	1.40	0.97
30	0.27	1.30	0.99	0.64	0.0	0.38	0.62	1.11	0.61	0.43	1.33	1.14
31	0.27	0.0	0.97	0.63	0.0	1.56	0.0	1.05	0.0	0.42	1.26	0.0
TOT	13.83	28.77	46.38	23.63	15.41	14.52	43.45	58.22	26.63	12.00	30.27	31.12

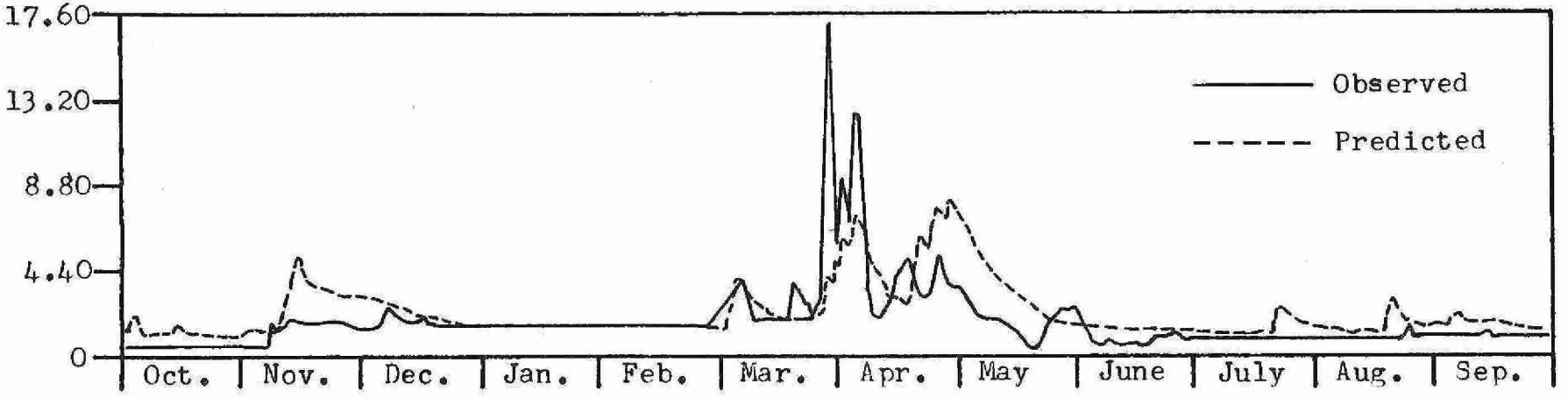
TOTAL FOR WATER YEAR = 344.23



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - RED CHALK #3

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	1.00	0.72	3.27	1.48	1.01	0.79	5.14	7.15	1.32	1.09	1.21	1.32
2	0.95	0.74	3.15	1.45	1.00	0.78	7.46	6.71	1.25	1.01	1.15	2.15
3	1.96	0.76	3.04	1.43	0.99	0.78	6.07	6.62	1.19	0.96	1.09	1.70
4	1.47	0.78	2.94	1.41	0.98	3.59	5.72	6.12	1.13	0.92	1.04	1.61
5	1.39	0.80	2.84	1.39	0.97	4.46	5.39	5.76	1.07	0.88	0.99	1.53
6	1.47	0.82	2.75	1.37	0.96	3.46	5.07	5.51	1.02	0.84	0.95	1.45
7	1.54	0.84	2.66	1.35	0.95	3.29	4.78	5.15	0.97	0.80	1.16	1.38
8	1.38	0.87	2.58	1.33	0.94	3.13	4.50	4.85	0.93	0.76	1.01	1.31
9	1.36	0.89	2.50	1.31	0.94	2.99	4.24	4.57	0.88	0.73	0.96	1.25
10	1.60	0.92	2.43	1.29	0.93	2.85	3.99	4.30	1.92	0.70	0.92	1.22
11	1.54	1.33	2.36	1.27	0.92	2.71	3.76	4.05	1.42	0.67	0.88	1.15
12	1.43	1.20	2.29	1.26	0.91	2.59	3.54	4.23	1.34	0.64	0.84	1.10
13	1.35	1.22	2.23	1.24	0.90	2.47	3.78	3.83	1.28	0.62	0.80	1.82
14	1.28	1.23	2.17	1.22	0.90	2.36	3.77	3.69	1.21	0.64	0.77	1.44
15	1.21	1.26	2.11	1.21	0.89	2.26	3.51	3.45	1.15	0.62	0.73	1.37
16	1.15	1.35	2.06	1.19	0.88	2.16	3.35	3.25	1.09	0.59	0.70	1.30
17	1.10	1.42	2.01	1.18	0.87	2.07	3.27	3.07	1.04	0.57	0.67	1.24
18	1.04	4.49	1.96	1.17	0.87	1.98	3.06	2.89	0.99	0.55	0.65	1.18
19	1.05	5.69	1.91	1.15	0.86	1.90	2.89	2.73	0.94	0.53	0.62	1.13
20	0.98	4.55	1.87	1.14	0.85	1.96	2.83	2.58	0.90	0.51	0.60	1.07
21	0.95	4.38	1.83	1.13	0.84	2.16	5.06	2.43	0.91	0.49	0.58	1.08
22	0.90	4.23	1.79	1.12	0.84	2.28	6.74	2.30	0.85	0.47	0.56	1.01
23	0.86	4.09	1.75	1.10	0.83	2.73	5.53	2.17	0.81	0.46	0.76	0.96
24	0.82	3.96	1.71	1.09	0.82	4.40	8.04	2.05	0.77	0.44	2.73	0.92
25	1.01	3.83	1.68	1.08	0.82	4.63	8.46	1.94	0.74	2.58	1.84	0.88
26	0.88	3.72	1.65	1.07	0.81	3.96	7.97	1.83	0.71	1.65	1.73	0.84
27	0.96	3.62	1.62	1.06	0.80	3.76	7.20	1.73	0.68	1.56	1.64	0.81
28	0.87	3.52	1.59	1.05	0.80	3.57	8.80	1.64	0.65	1.48	1.56	0.78
29	0.83	3.43	1.56	1.04	0.0	5.30	8.53	1.55	0.62	1.41	1.48	0.75
30	0.79	3.35	1.53	1.03	0.0	4.37	7.60	1.47	1.37	1.33	1.40	0.72
31	0.76	0.0	1.50	1.02	0.0	6.27	0.0	1.40	0.0	1.27	1.33	0.0
TOT	35.85	69.99	67.35	37.61	25.08	91.98	160.05	111.04	31.15	27.77	33.35	36.49

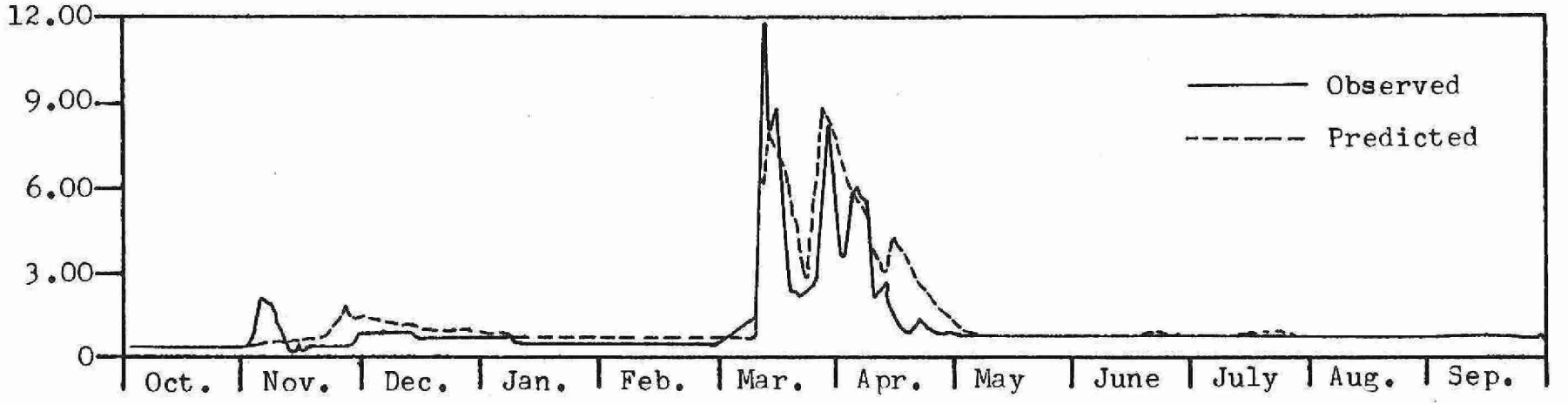
TOTAL FOR WATER YEAR = 727.71



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - RED CHALK #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.44	0.21	1.95	0.84	0.63	0.51	7.30	1.04	0.51	0.16	0.32	0.22
2	0.41	0.23	1.86	0.83	0.62	0.51	6.74	0.96	0.44	0.16	0.30	0.21
3	0.39	0.25	1.78	0.82	0.62	0.51	6.27	0.89	0.41	0.15	0.29	0.20
4	0.37	0.28	1.71	0.81	0.61	0.50	5.79	0.83	0.39	0.15	0.33	0.20
5	0.35	0.30	1.64	0.80	0.61	0.50	5.36	0.77	0.36	0.26	0.44	0.19
6	0.57	0.32	1.57	0.79	0.60	0.50	4.95	0.72	0.34	0.24	0.39	0.18
7	0.50	0.34	1.51	0.78	0.60	0.49	4.57	0.67	0.33	0.23	0.37	0.18
8	0.47	0.37	1.46	0.77	0.60	0.49	4.22	0.62	0.31	0.22	0.35	0.17
9	0.44	0.39	1.41	0.77	0.59	0.49	3.90	0.58	0.29	0.21	0.40	0.21
10	0.42	0.41	1.36	0.76	0.59	0.60	3.62	0.54	0.28	0.20	0.37	0.20
11	0.40	0.44	1.32	0.75	0.58	0.81	3.67	0.51	0.27	0.20	0.35	0.19
12	0.38	0.46	1.28	0.74	0.58	5.01	5.39	0.48	0.25	0.19	0.33	0.19
13	0.36	0.48	1.24	0.74	0.58	6.63	4.77	0.45	0.24	0.18	0.31	0.18
14	0.34	0.50	1.20	0.73	0.57	6.49	4.40	0.42	0.23	0.18	0.30	0.18
15	0.33	0.53	1.17	0.72	0.57	7.89	4.06	0.40	0.22	0.17	0.28	0.17
16	0.31	0.55	1.14	0.72	0.56	7.04	3.75	0.37	0.22	0.17	0.32	0.17
17	0.30	0.58	1.11	0.71	0.56	6.51	3.45	0.35	0.21	0.16	0.30	0.17
18	0.28	0.60	1.08	0.70	0.55	6.03	3.19	0.33	0.20	0.16	0.28	0.16
19	0.27	0.63	1.06	0.70	0.55	5.58	2.94	0.31	0.20	0.16	0.27	0.16
20	0.26	0.70	1.04	0.69	0.55	5.18	2.71	0.30	0.19	0.15	0.26	0.46
21	0.30	0.72	1.01	0.69	0.54	4.80	2.49	0.28	0.18	0.15	0.36	0.39
22	0.31	0.74	0.99	0.68	0.54	4.46	2.29	0.27	0.18	0.15	0.33	0.37
23	0.30	0.75	0.97	0.67	0.54	4.14	2.11	0.26	0.17	0.14	0.31	0.35
24	0.28	0.77	0.96	0.67	0.53	3.85	1.94	0.24	0.17	0.18	0.30	0.33
25	0.27	0.91	0.94	0.66	0.53	3.58	1.78	0.23	0.16	0.17	0.28	0.39
26	0.26	0.91	0.92	0.66	0.52	3.33	1.63	0.22	0.16	0.16	0.27	0.66
27	0.25	2.43	0.91	0.65	0.52	3.19	1.50	0.21	0.16	0.16	0.26	0.58
28	0.24	2.17	0.89	0.65	0.52	5.55	1.37	0.21	0.18	0.15	0.25	0.55
29	0.23	2.09	0.88	0.64	0.0	5.72	1.25	0.20	0.17	0.15	0.24	0.53
30	0.23	2.02	0.87	0.64	0.0	9.08	1.14	0.19	0.17	0.15	0.23	0.49
31	0.22	0.0	0.85	0.63	0.0	7.89	0.0	0.19	0.0	0.37	0.23	0.0
TOT	10.47	22.15	38.10	22.42	15.97	117.83	108.54	14.06	7.58	5.64	9.58	8.63

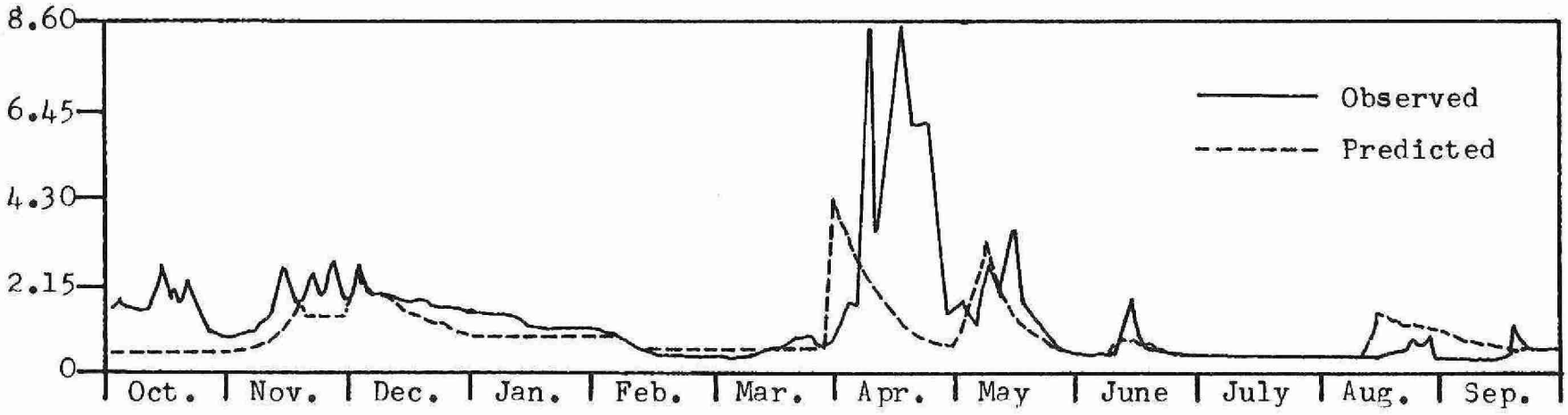
TOTAL FOR WATER YEAR = 380.99



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - RED CHALK #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.60	0.20	2.64	0.88	0.64	0.52	4.12	0.44	0.56	0.30	0.30	0.80
2	0.54	0.22	2.31	0.87	0.63	0.51	3.43	0.43	0.52	0.28	0.34	0.75
3	0.51	0.41	2.19	0.86	0.63	0.51	3.18	0.40	0.49	0.27	0.32	0.70
4	0.48	0.40	2.08	0.84	0.62	0.51	2.94	0.38	0.49	0.26	0.30	0.66
5	0.45	0.41	1.98	0.83	0.62	0.50	2.73	0.38	0.45	0.25	0.29	0.62
6	0.43	0.42	1.89	0.82	0.61	0.50	2.53	0.96	0.42	0.24	0.27	0.58
7	0.40	0.46	1.81	0.81	0.61	0.50	2.34	0.97	0.43	0.23	0.26	0.55
8	0.54	0.47	1.73	0.80	0.60	0.49	2.17	1.66	0.40	0.22	0.25	0.51
9	0.49	0.48	1.66	0.79	0.60	0.49	2.01	3.34	0.37	0.21	0.24	0.50
10	0.46	0.50	1.59	0.78	0.59	0.49	1.86	2.90	0.35	0.20	0.23	0.59
11	0.47	0.51	1.53	0.77	0.59	0.48	1.72	2.66	0.33	0.20	0.23	0.58
12	0.44	0.53	1.47	0.76	0.58	0.48	1.61	2.48	0.89	0.19	0.22	0.54
13	0.42	0.55	1.42	0.75	0.58	0.48	1.49	2.29	0.75	0.19	0.21	0.51
14	0.40	0.56	1.37	0.75	0.58	0.47	1.39	2.14	0.70	0.19	0.21	0.59
15	0.42	0.58	1.32	0.74	0.57	0.47	1.29	1.97	0.65	0.18	1.33	0.54
16	0.39	1.32	1.28	0.73	0.57	0.47	1.19	1.82	0.61	0.18	1.30	0.53
17	0.37	1.25	1.24	0.72	0.56	0.46	1.10	1.68	0.57	0.17	1.18	0.50
18	0.35	1.22	1.20	0.72	0.56	0.46	1.02	1.55	0.53	0.17	1.10	0.48
19	0.33	1.19	1.17	0.71	0.56	0.46	1.06	1.44	0.50	0.16	1.27	0.45
20	0.32	1.18	1.14	0.70	0.55	0.45	0.97	1.33	0.47	0.24	1.15	0.75
21	0.30	1.19	1.11	0.70	0.55	0.45	0.90	1.23	0.44	0.22	1.07	0.67
22	0.29	1.18	1.08	0.69	0.54	0.45	0.83	1.14	0.41	0.24	0.99	0.63
23	0.28	1.16	1.05	0.68	0.54	0.44	0.76	1.06	0.39	0.23	1.38	0.59
24	0.27	1.15	1.03	0.68	0.54	0.44	0.71	0.98	0.37	0.22	1.24	0.56
25	0.25	1.15	1.01	0.67	0.53	0.44	0.67	0.91	0.35	0.21	1.15	0.53
26	0.25	1.14	0.99	0.67	0.53	0.44	0.63	0.85	0.33	0.21	1.07	0.50
27	0.24	1.14	0.97	0.66	0.53	0.43	0.60	0.79	0.37	0.20	1.09	0.50
28	0.23	1.14	0.95	0.66	0.52	0.43	0.57	0.73	0.34	0.20	1.05	0.47
29	0.22	1.13	0.93	0.65	0.0	0.43	0.54	0.68	0.33	0.38	0.97	0.46
30	0.21	1.14	0.91	0.65	0.0	0.42	0.49	0.64	0.31	0.33	0.90	0.51
31	0.21	0.0	0.90	0.64	0.0	1.59	0.0	0.59	0.0	0.32	0.84	0.0
TOT	11.55	24.36	43.95	22.97	16.11	15.66	46.85	40.84	14.12	7.09	22.78	17.13

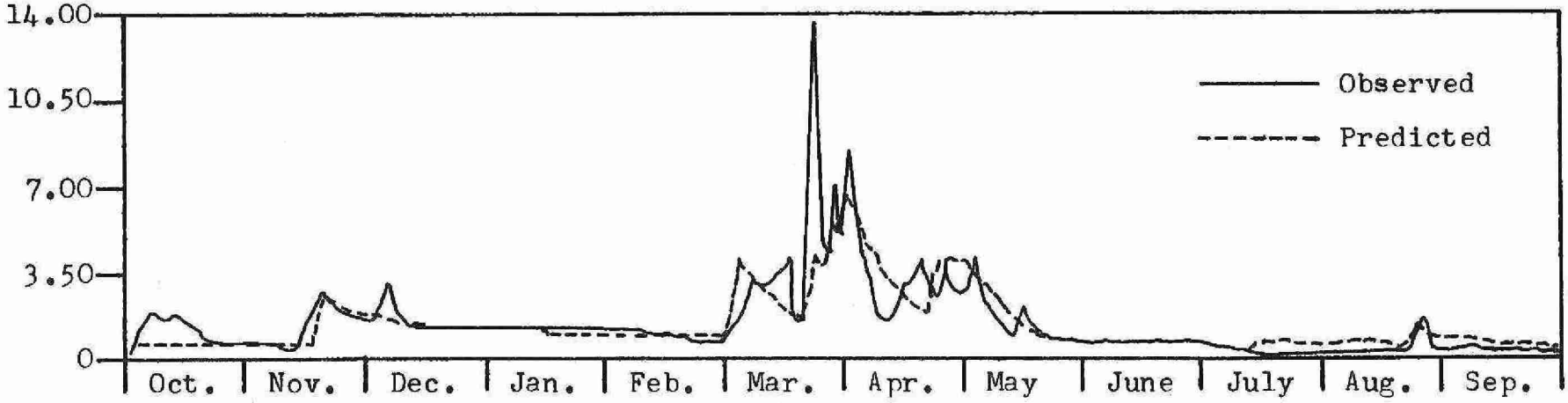
TOTAL FOR WATER YEAR = 283.42



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - RED CHALK #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.47	0.29	2.13	1.12	0.86	0.71	5.33	3.68	0.48	0.54	0.80	0.87
2	0.45	0.32	2.06	1.11	0.85	0.70	7.17	3.40	0.46	0.51	0.75	1.25
3	0.77	0.34	1.99	1.10	0.85	0.70	6.34	3.20	0.44	0.48	0.71	1.11
4	0.68	0.37	1.92	1.09	0.84	3.26	5.86	2.95	0.42	0.46	0.67	1.04
5	0.64	0.39	1.86	1.07	0.84	4.53	5.42	2.73	0.41	0.44	0.64	0.97
6	0.64	0.42	1.81	1.06	0.83	3.98	5.01	2.54	0.39	0.42	0.60	0.91
7	0.65	0.45	1.75	1.05	0.82	3.71	4.63	2.35	0.37	0.41	0.68	0.86
8	0.60	0.48	1.71	1.04	0.82	3.46	4.29	2.18	0.36	0.39	0.63	0.81
9	0.58	0.51	1.66	1.03	0.81	3.24	3.97	2.02	0.35	0.38	0.60	0.77
10	0.63	0.53	1.62	1.03	0.81	3.03	3.67	1.87	0.69	0.36	0.57	0.74
11	0.61	0.65	1.58	1.02	0.80	2.84	3.39	1.73	0.60	0.35	0.54	0.70
12	0.58	0.66	1.54	1.01	0.80	2.66	3.14	1.71	0.57	0.34	0.52	0.66
13	0.54	0.69	1.51	1.00	0.79	2.50	3.11	1.57	0.54	0.33	0.49	0.98
14	0.51	0.71	1.47	0.99	0.78	2.35	3.01	1.48	0.52	0.34	0.47	0.87
15	0.49	0.74	1.44	0.98	0.78	2.21	2.80	1.37	0.49	0.34	0.45	0.82
16	0.46	0.77	1.42	0.97	0.77	2.08	2.61	1.28	0.47	0.32	0.43	0.77
17	0.44	0.81	1.39	0.97	0.77	1.97	2.46	1.19	0.45	0.32	0.41	0.73
18	0.42	2.38	1.36	0.96	0.76	1.86	2.28	1.11	0.43	0.31	0.40	0.69
19	0.41	3.31	1.34	0.95	0.76	1.76	2.12	1.04	0.41	0.30	0.39	0.66
20	0.39	3.04	1.32	0.94	0.75	1.75	1.99	0.97	0.39	0.29	0.37	0.62
21	0.38	2.91	1.30	0.94	0.75	1.88	3.04	0.91	0.39	0.29	0.36	0.61
22	0.36	2.79	1.28	0.93	0.74	1.98	4.07	0.85	0.38	0.28	0.35	0.58
23	0.34	2.68	1.26	0.92	0.74	2.35	3.66	0.80	0.36	0.27	0.46	0.55
24	0.33	2.58	1.24	0.91	0.73	3.95	4.70	0.75	0.35	0.27	1.60	0.53
25	0.37	2.49	1.22	0.91	0.73	4.45	4.93	0.71	0.34	1.43	1.34	0.51
26	0.35	2.42	1.20	0.90	0.72	4.03	4.66	0.67	0.33	1.18	1.25	0.49
27	0.35	2.34	1.19	0.89	0.72	3.76	4.25	0.63	0.32	1.10	1.17	0.47
28	0.34	2.28	1.17	0.89	0.71	3.51	4.62	0.60	0.31	1.03	1.09	0.45
29	0.32	2.23	1.16	0.88	0.0	4.95	4.43	0.56	0.30	0.96	1.02	0.43
30	0.31	2.18	1.15	0.87	0.0	4.42	4.02	0.54	0.58	0.90	0.96	0.42
31	0.30	0.0	1.13	0.87	0.0	6.01	0.0	0.51	0.0	0.85	0.90	0.0
TOT	14.71	42.77	46.17	30.40	21.94	90.58	121.01	47.89	12.94	16.19	21.62	21.86

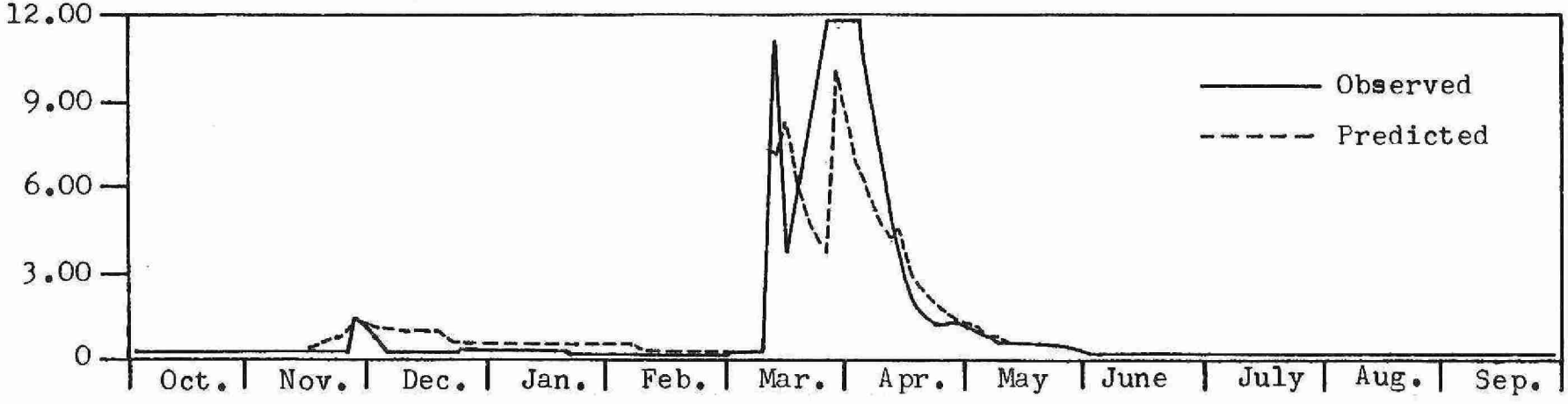
TOTAL FOR WATER YEAR = 488.06



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - BLUE CHALK 1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.22	0.17	0.88	0.48	0.38	0.32	7.77	1.12	0.28	0.11	0.12	0.10
2	0.22	0.18	0.85	0.47	0.37	0.32	7.25	1.05	0.24	0.11	0.12	0.10
3	0.21	0.19	0.83	0.47	0.37	0.32	6.79	0.98	0.23	0.10	0.12	0.10
4	0.21	0.20	0.80	0.46	0.37	0.32	6.33	0.92	0.22	0.10	0.13	0.10
5	0.20	0.21	0.78	0.46	0.37	0.31	5.91	0.86	0.21	0.13	0.15	0.10
6	0.25	0.22	0.76	0.46	0.37	0.31	5.51	0.81	0.20	0.12	0.14	0.10
7	0.23	0.23	0.74	0.45	0.36	0.31	5.15	0.76	0.20	0.12	0.13	0.10
8	0.22	0.24	0.72	0.45	0.36	0.31	4.80	0.71	0.19	0.11	0.13	0.09
9	0.22	0.25	0.70	0.44	0.36	0.31	4.48	0.67	0.18	0.11	0.14	0.10
10	0.21	0.26	0.69	0.44	0.36	0.69	4.19	0.63	0.17	0.11	0.13	0.10
11	0.21	0.27	0.67	0.44	0.36	1.11	3.99	0.59	0.17	0.11	0.13	0.10
12	0.21	0.28	0.66	0.43	0.35	5.78	4.35	0.56	0.16	0.11	0.13	0.10
13	0.20	0.29	0.64	0.43	0.35	7.08	3.90	0.53	0.16	0.10	0.12	0.09
14	0.20	0.30	0.63	0.43	0.35	6.79	3.64	0.50	0.15	0.10	0.12	0.09
15	0.19	0.31	0.62	0.42	0.35	8.51	3.40	0.47	0.15	0.10	0.12	0.09
16	0.19	0.32	0.60	0.42	0.35	7.18	3.18	0.44	0.14	0.10	0.13	0.09
17	0.19	0.33	0.59	0.42	0.34	6.71	2.96	0.42	0.14	0.10	0.12	0.09
18	0.19	0.34	0.58	0.41	0.34	6.27	2.77	0.40	0.14	0.10	0.12	0.09
19	0.18	0.37	0.57	0.41	0.34	5.86	2.58	0.38	0.13	0.10	0.11	0.09
20	0.18	0.37	0.56	0.41	0.34	5.48	2.41	0.36	0.13	0.10	0.11	0.16
21	0.19	0.38	0.55	0.40	0.34	5.12	2.25	0.34	0.13	0.09	0.13	0.13
22	0.19	0.39	0.55	0.40	0.33	4.79	2.10	0.32	0.12	0.09	0.12	0.13
23	0.19	0.40	0.54	0.40	0.33	4.48	1.96	0.30	0.12	0.09	0.12	0.13
24	0.18	0.41	0.53	0.40	0.33	4.19	1.83	0.29	0.12	0.10	0.12	0.12
25	0.18	0.45	0.52	0.39	0.33	3.92	1.71	0.28	0.12	0.10	0.12	0.13
26	0.18	0.45	0.52	0.39	0.33	3.67	1.59	0.26	0.11	0.10	0.11	0.20
27	0.18	1.13	0.51	0.39	0.32	3.75	1.48	0.25	0.11	0.09	0.11	0.17
28	0.17	0.94	0.50	0.39	0.32	6.59	1.38	0.24	0.12	0.09	0.11	0.16
29	0.17	0.92	0.50	0.38	0.0	6.59	1.29	0.23	0.11	0.09	0.11	0.16
30	0.17	0.90	0.49	0.38	0.0	10.26	1.20	0.22	0.11	0.09	0.11	0.16
31	0.17	0.0	0.48	0.38	0.0	8.39	0.0	0.21	0.0	0.14	0.11	0.0
TOT	6.10	11.72	19.57	13.11	9.76	126.04	108.15	16.09	4.77	3.21	3.77	3.47

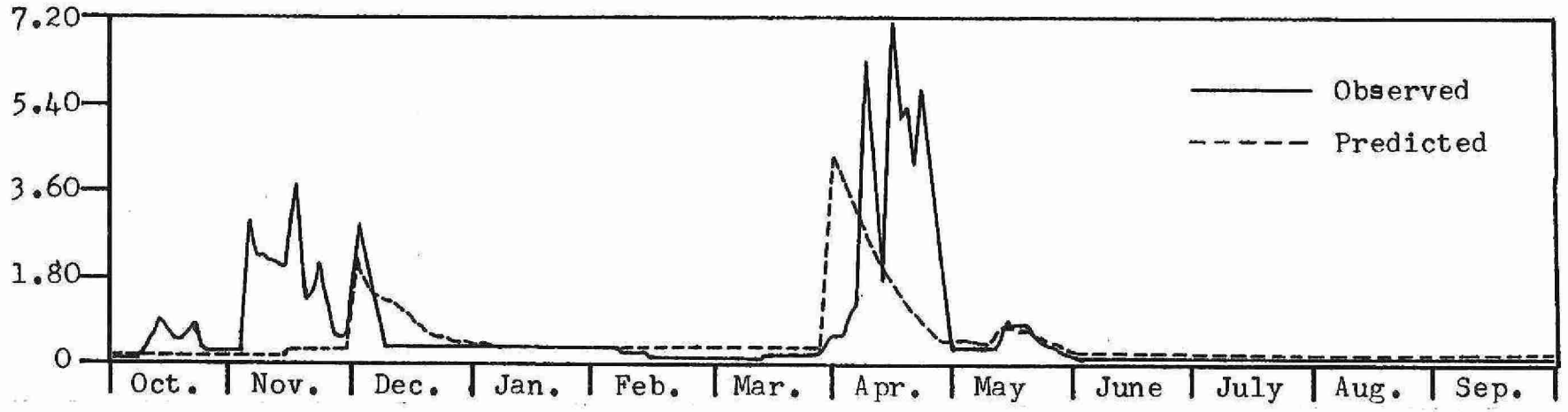
TOTAL FOR WATER YEAR = 325.77



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - BLUE CHALK 1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.18	0.10	2.36	0.40	0.22	0.18	4.58	0.46	0.24	0.12	0.10	0.20
2	0.17	0.10	1.60	0.38	0.22	0.17	3.24	0.43	0.23	0.11	0.11	0.20
3	0.16	0.15	1.51	0.37	0.21	0.17	3.02	0.41	0.22	0.11	0.10	0.19
4	0.16	0.14	1.42	0.36	0.21	0.17	2.82	0.38	0.21	0.11	0.10	0.18
5	0.15	0.14	1.34	0.35	0.21	0.17	2.64	0.36	0.20	0.10	0.09	0.17
6	0.15	0.15	1.27	0.34	0.21	0.17	2.46	0.48	0.19	0.10	0.09	0.16
7	0.14	0.16	1.20	0.33	0.21	0.17	2.30	0.45	0.19	0.10	0.09	0.16
8	0.17	0.16	1.13	0.32	0.20	0.17	2.15	0.60	0.18	0.09	0.09	0.15
9	0.16	0.16	1.07	0.32	0.20	0.17	2.00	1.19	0.17	0.09	0.09	0.15
10	0.15	0.17	1.02	0.31	0.20	0.17	1.87	0.93	0.16	0.09	0.08	0.17
11	0.15	0.17	0.96	0.30	0.20	0.17	1.75	0.87	0.16	0.09	0.08	0.16
12	0.15	0.18	0.91	0.30	0.20	0.16	1.63	0.82	0.29	0.09	0.08	0.15
13	0.14	0.18	0.87	0.29	0.20	0.16	1.53	0.76	0.24	0.09	0.08	0.15
14	0.14	0.19	0.83	0.28	0.19	0.16	1.43	0.72	0.22	0.08	0.08	0.17
15	0.14	0.19	0.79	0.28	0.19	0.16	1.33	0.67	0.21	0.08	0.32	0.15
16	0.14	0.39	0.75	0.27	0.19	0.16	1.24	0.63	0.20	0.08	0.28	0.15
17	0.13	0.34	0.71	0.27	0.19	0.16	1.16	0.59	0.19	0.08	0.25	0.14
18	0.13	0.33	0.68	0.26	0.19	0.16	1.08	0.56	0.18	0.08	0.24	0.14
19	0.13	0.33	0.65	0.26	0.19	0.16	1.04	0.52	0.17	0.08	0.28	0.13
20	0.12	0.33	0.62	0.26	0.19	0.16	0.96	0.49	0.17	0.09	0.25	0.20
21	0.12	0.34	0.60	0.25	0.19	0.16	0.90	0.46	0.16	0.09	0.24	0.17
22	0.12	0.33	0.57	0.25	0.18	0.16	0.84	0.43	0.15	0.09	0.23	0.16
23	0.12	0.33	0.55	0.24	0.18	0.15	0.78	0.41	0.15	0.09	0.32	0.16
24	0.11	0.33	0.53	0.24	0.18	0.15	0.73	0.38	0.14	0.08	0.28	0.15
25	0.11	0.33	0.51	0.24	0.18	0.15	0.69	0.36	0.14	0.08	0.26	0.15
26	0.11	0.33	0.49	0.23	0.18	0.15	0.64	0.34	0.13	0.08	0.25	0.14
27	0.11	0.33	0.47	0.23	0.18	0.15	0.60	0.32	0.14	0.08	0.26	0.14
28	0.11	0.33	0.45	0.23	0.18	0.15	0.57	0.30	0.13	0.08	0.25	0.14
29	0.10	0.33	0.44	0.23	0.0	0.15	0.53	0.29	0.13	0.12	0.23	0.14
30	0.10	0.33	0.42	0.22	0.0	0.15	0.49	0.27	0.12	0.10	0.22	0.15
31	0.10	0.0	0.41	0.22	0.0	1.83	0.0	0.26	0.0	0.10	0.21	0.0
TOT	4.16	7.38	27.11	8.85	5.47	6.68	47.02	16.15	5.42	2.83	5.64	4.78

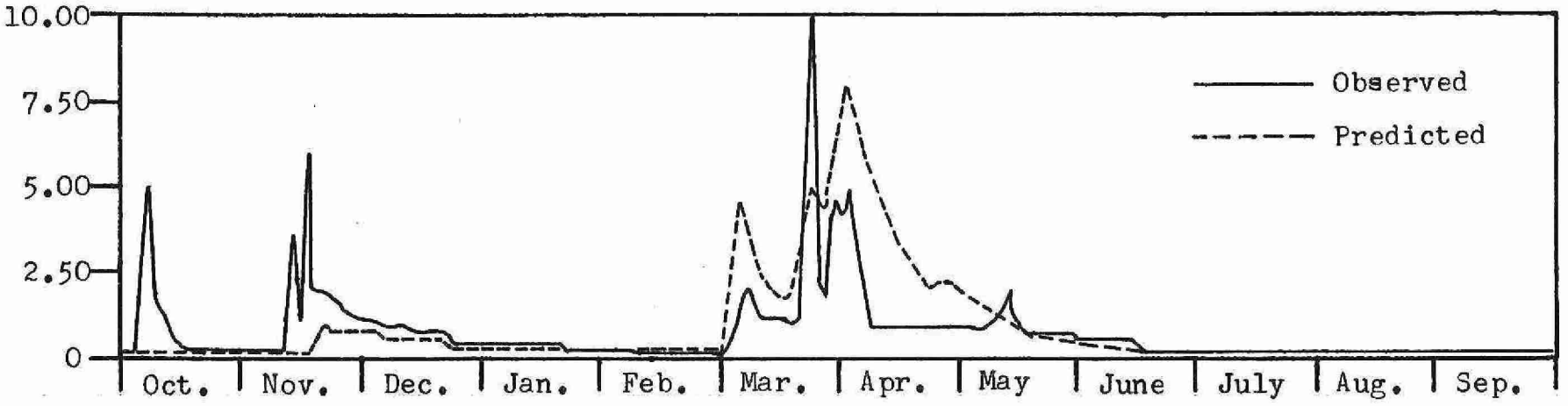
TOTAL FOR WATER YEAR = 141.49



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - BLUE CHALK 1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.14	0.10	0.55	0.29	0.23	0.19	5.73	1.85	0.31	0.20	0.25	0.27
2	0.13	0.11	0.53	0.29	0.22	0.19	7.39	1.73	0.29	0.19	0.24	0.36
3	0.20	0.11	0.51	0.28	0.22	0.19	6.31	1.64	0.28	0.19	0.23	0.31
4	0.17	0.11	0.50	0.28	0.22	3.38	5.89	1.53	0.27	0.18	0.22	0.30
5	0.17	0.12	0.48	0.28	0.22	4.54	5.50	1.43	0.26	0.18	0.22	0.29
6	0.17	0.12	0.47	0.27	0.22	3.52	5.13	1.34	0.25	0.17	0.21	0.28
7	0.17	0.13	0.46	0.27	0.22	3.29	4.78	1.26	0.24	0.17	0.23	0.27
8	0.16	0.13	0.44	0.27	0.22	3.08	4.46	1.18	0.23	0.16	0.21	0.26
9	0.16	0.14	0.43	0.27	0.21	2.88	4.16	1.11	0.22	0.16	0.21	0.25
10	0.17	0.14	0.42	0.26	0.21	2.70	3.89	1.04	0.31	0.15	0.20	0.24
11	0.17	0.17	0.41	0.26	0.21	2.52	3.63	0.97	0.27	0.15	0.19	0.23
12	0.16	0.16	0.40	0.26	0.21	2.36	3.38	0.94	0.26	0.15	0.19	0.22
13	0.15	0.17	0.39	0.26	0.21	2.21	3.21	0.88	0.25	0.14	0.18	0.31
14	0.15	0.17	0.38	0.26	0.21	2.07	3.02	0.83	0.24	0.15	0.18	0.27
15	0.14	0.18	0.38	0.25	0.21	1.94	2.82	0.78	0.23	0.14	0.17	0.26
16	0.14	0.18	0.37	0.25	0.21	1.82	2.64	0.73	0.22	0.14	0.17	0.25
17	0.13	0.19	0.36	0.25	0.21	1.71	2.47	0.69	0.21	0.14	0.16	0.24
18	0.13	0.67	0.35	0.25	0.20	1.60	2.30	0.65	0.20	0.14	0.16	0.23
19	0.13	0.88	0.35	0.25	0.20	1.50	2.15	0.61	0.20	0.13	0.16	0.22
20	0.12	0.76	0.34	0.24	0.20	1.73	2.02	0.58	0.19	0.13	0.15	0.22
21	0.12	0.73	0.34	0.24	0.20	2.07	2.22	0.55	0.19	0.13	0.15	0.21
22	0.12	0.70	0.33	0.24	0.20	2.31	2.39	0.52	0.18	0.13	0.15	0.21
23	0.11	0.68	0.33	0.24	0.20	2.89	2.14	0.49	0.18	0.13	0.17	0.20
24	0.11	0.66	0.32	0.24	0.20	4.74	2.39	0.46	0.17	0.12	0.46	0.19
25	0.12	0.64	0.32	0.24	0.20	5.18	2.69	0.44	0.17	0.43	0.36	0.19
26	0.11	0.62	0.31	0.23	0.20	4.39	2.41	0.41	0.16	0.32	0.34	0.18
27	0.12	0.60	0.31	0.23	0.19	4.10	2.23	0.39	0.16	0.31	0.32	0.18
28	0.11	0.59	0.30	0.23	0.19	3.83	2.29	0.37	0.15	0.30	0.31	0.17
29	0.11	0.57	0.30	0.23	0.0	5.77	2.16	0.36	0.15	0.28	0.30	0.17
30	0.11	0.56	0.30	0.23	0.0	4.89	1.99	0.34	0.22	0.27	0.28	0.17
31	0.10	0.0	0.29	0.23	0.0	6.93	0.0	0.32	0.0	0.26	0.27	0.0
TOT	4.29	11.09	11.96	7.86	5.84	90.56	103.77	26.42	6.65	5.85	7.03	7.12

TOTAL FOR WATER YEAR = 288.44



Appendix C

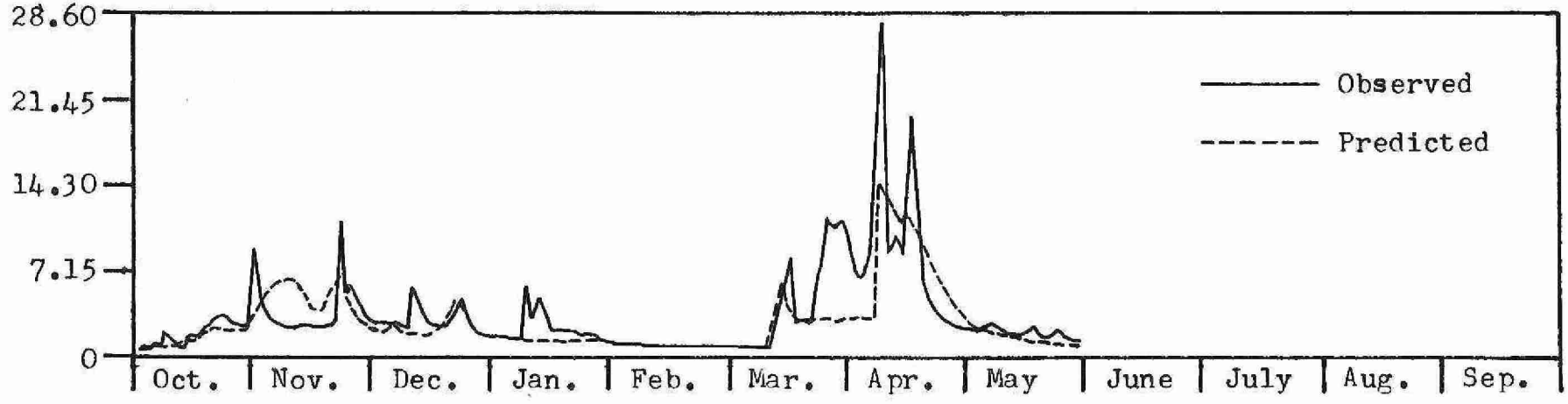
Daily Streamflow Simulations for Water Year 1980 for

Harp Lake
Jerry Lake
Dickie Lake
Chub Lake
Red Chalk Lake
Blue Chalk Lake

DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - HARP LAKE #3

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.64	4.12	2.01	1.27	0.09	0.01	3.60	2.02	0.54	2.11	2.65	4.66
2	0.62	4.11	1.61	1.14	0.08	0.01	3.61	1.86	0.50	1.96	2.48	4.70
3	0.61	4.87	1.33	1.03	0.07	0.01	3.78	1.71	0.47	1.83	2.31	4.28
4	0.74	5.56	1.13	0.94	0.07	0.01	2.93	1.58	0.44	1.70	2.16	3.98
5	0.72	6.14	0.98	0.85	0.06	0.01	2.45	1.45	0.41	1.59	2.09	3.70
6	0.91	6.62	1.85	0.78	0.06	0.00	2.52	1.35	1.02	1.48	1.94	3.45
7	0.83	6.94	2.96	0.71	0.05	0.00	4.75	1.26	0.81	1.81	1.82	3.22
8	0.83	7.11	2.24	0.65	0.05	0.00	11.87	1.18	0.75	1.98	1.71	3.00
9	0.79	7.12	1.76	0.60	0.04	0.00	15.32	1.08	0.70	1.76	1.61	3.05
10	0.76	6.99	1.43	0.55	0.04	0.00	14.59	1.00	0.66	1.65	1.51	2.80
11	0.83	6.72	1.19	0.51	0.04	0.00	13.61	0.92	0.62	1.54	1.42	2.62
12	1.39	6.35	1.02	0.46	0.03	0.00	11.91	0.85	0.58	1.44	1.34	2.45
13	1.19	5.89	0.89	0.43	0.03	0.00	10.87	0.82	0.55	1.35	1.35	2.81
14	1.17	5.37	0.79	0.39	0.03	0.00	11.89	0.75	1.32	1.32	1.30	2.51
15	1.11	4.82	0.71	0.36	0.03	0.00	11.67	0.69	1.04	1.23	1.23	2.36
16	1.06	4.25	0.64	0.33	0.02	0.00	10.14	0.64	0.97	1.16	1.16	2.55
17	1.01	3.70	0.58	0.30	0.02	0.00	8.84	0.63	0.91	1.09	1.10	5.55
18	0.97	3.17	0.53	0.28	0.02	0.00	7.77	0.66	0.87	1.03	1.05	4.21
19	1.43	3.19	0.49	0.26	0.02	0.00	6.89	0.60	6.15	0.97	0.99	3.92
20	1.98	3.98	0.44	0.24	0.02	1.88	6.14	0.55	4.56	1.37	0.95	3.65
21	1.70	3.33	0.41	0.22	0.02	6.98	5.49	0.51	4.12	1.19	2.13	3.41
22	1.61	3.85	0.37	0.20	0.01	6.42	4.94	0.48	3.81	1.32	2.40	3.30
23	2.43	6.44	0.97	0.18	0.01	5.04	4.45	0.44	3.53	1.20	2.08	3.06
24	2.07	7.36	4.59	0.17	0.01	4.10	4.02	0.41	3.26	1.13	1.95	2.86
25	1.95	5.84	4.69	0.15	0.01	3.43	3.63	0.38	3.02	1.07	1.84	2.96
26	1.84	5.05	3.55	0.14	0.01	2.94	3.29	0.35	2.80	2.99	1.73	2.71
27	1.74	4.80	2.79	0.13	0.01	2.62	2.97	0.33	2.60	2.30	1.63	2.65
28	1.65	3.99	2.27	0.12	0.01	2.77	2.70	0.31	2.41	4.14	1.54	2.46
29	1.56	3.27	1.91	0.11	0.01	3.30	2.44	0.29	2.50	3.29	1.53	2.32
30	1.55	2.55	1.64	0.10	0.0	3.10	2.20	0.66	2.27	3.06	1.91	2.18
31	1.56	0.0	1.43	0.09	0.0	3.13	0.0	0.59	0.0	2.85	6.44	0.0
TOT	39.29	153.49	49.21	13.71	0.96	45.80	201.28	26.36	54.21	54.94	57.38	97.40

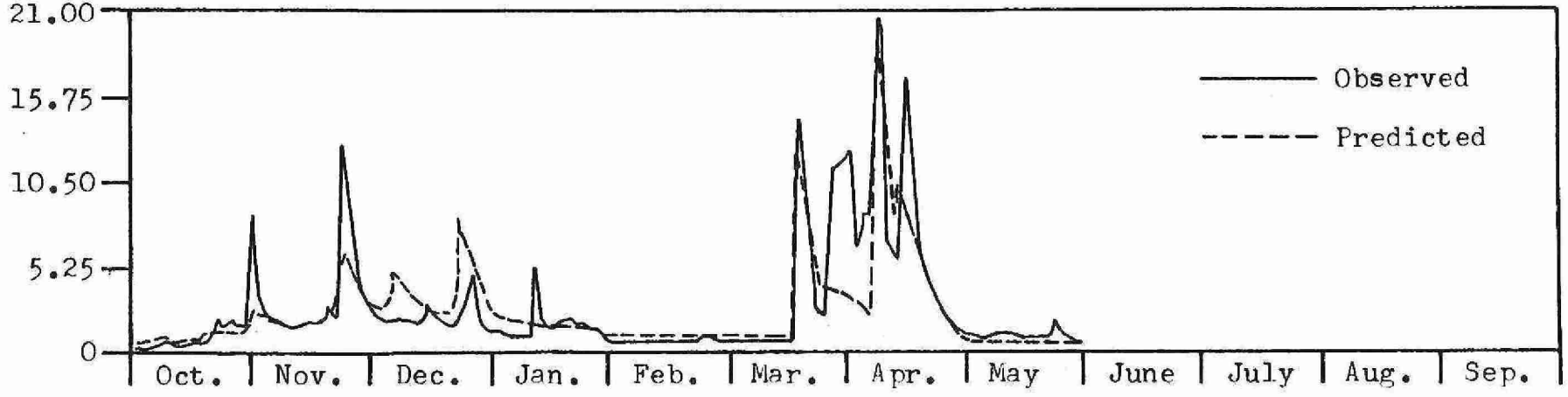
TOTAL FOR WATER YEAR = 794.02



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIUS - HARP LAKE #3A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.46	2.74	3.04	2.46	0.97	0.66	3.70	0.36	0.42	0.67	1.07	3.94
2	0.45	2.53	2.82	2.21	0.96	0.65	3.75	0.33	0.37	0.59	0.90	3.23
3	0.44	2.14	2.64	2.02	0.94	0.64	3.09	0.31	0.34	0.53	0.77	2.60
4	0.78	1.85	2.50	1.87	0.93	0.64	2.48	0.29	0.31	0.47	0.67	2.10
5	0.79	1.64	2.38	1.74	0.92	0.63	2.21	0.28	0.29	0.44	0.62	1.71
6	1.06	1.50	4.95	1.64	0.91	0.62	2.02	0.28	0.78	0.40	0.56	1.41
7	0.96	1.39	4.53	1.56	0.90	0.61	5.62	0.28	0.71	0.60	0.51	1.18
8	0.88	1.32	3.94	1.50	0.88	0.60	15.06	0.27	0.60	0.67	0.47	1.00
9	0.78	1.28	3.47	1.44	0.87	0.59	20.19	0.26	0.52	0.60	0.44	0.94
10	0.70	1.25	3.11	1.40	0.86	0.59	17.52	0.25	0.45	0.53	0.41	0.83
11	0.71	1.25	2.82	1.36	0.85	0.58	13.86	0.25	0.40	0.48	0.40	0.73
12	1.34	1.25	2.59	1.32	0.84	0.57	11.20	0.24	0.36	0.44	0.38	0.65
13	1.22	1.27	2.41	1.29	0.83	0.56	8.84	0.27	0.33	0.41	0.39	0.75
14	1.07	1.29	2.26	1.27	0.82	0.56	10.50	0.27	0.86	0.41	0.38	0.69
15	0.93	1.32	2.14	1.24	0.81	0.55	8.72	0.26	0.78	0.39	0.37	0.62
16	0.82	1.35	2.04	1.22	0.80	0.54	6.87	0.25	0.66	0.37	0.36	0.62
17	0.73	1.38	1.96	1.20	0.78	0.53	5.43	0.28	0.56	0.35	0.35	2.65
18	0.66	1.41	1.90	1.18	0.77	0.53	4.31	0.30	0.50	0.34	0.35	2.38
19	0.93	2.49	1.84	1.16	0.76	0.52	3.44	0.29	5.71	0.33	0.34	1.93
20	1.40	2.45	1.79	1.14	0.75	4.76	2.76	0.27	5.18	0.55	0.34	1.59
21	1.24	2.41	1.75	1.13	0.74	12.17	2.22	0.26	4.09	0.52	1.07	1.33
22	1.06	4.06	1.71	1.11	0.73	10.31	1.80	0.25	3.24	0.55	1.22	1.15
23	1.45	5.94	3.95	1.10	0.72	8.08	1.47	0.24	2.57	0.51	1.05	0.98
24	1.29	5.33	8.77	1.08	0.72	6.36	1.21	0.24	2.06	0.46	0.89	0.86
25	1.10	4.71	7.64	1.07	0.71	5.02	1.00	0.23	1.66	0.42	0.76	0.80
26	0.96	4.62	6.25	1.05	0.70	3.99	0.83	0.23	1.36	1.58	0.67	0.72
27	0.84	4.26	5.17	1.04	0.69	3.57	0.69	0.23	1.12	1.44	0.59	0.66
28	0.75	3.92	4.33	1.02	0.68	3.86	0.58	0.22	0.93	2.22	0.54	0.60
29	0.69	3.56	3.68	1.01	0.67	3.67	0.48	0.23	0.91	1.91	0.50	0.56
30	0.64	3.26	3.17	1.00	0.0	3.43	0.40	0.49	0.78	1.55	0.58	0.53
31	0.63	0.0	2.77	0.98	0.0	3.89	0.0	0.48	0.0	1.28	4.42	0.0
TOT	27.75	75.16	104.32	41.80	23.51	80.30	162.24	8.70	38.85	22.01	22.39	39.73

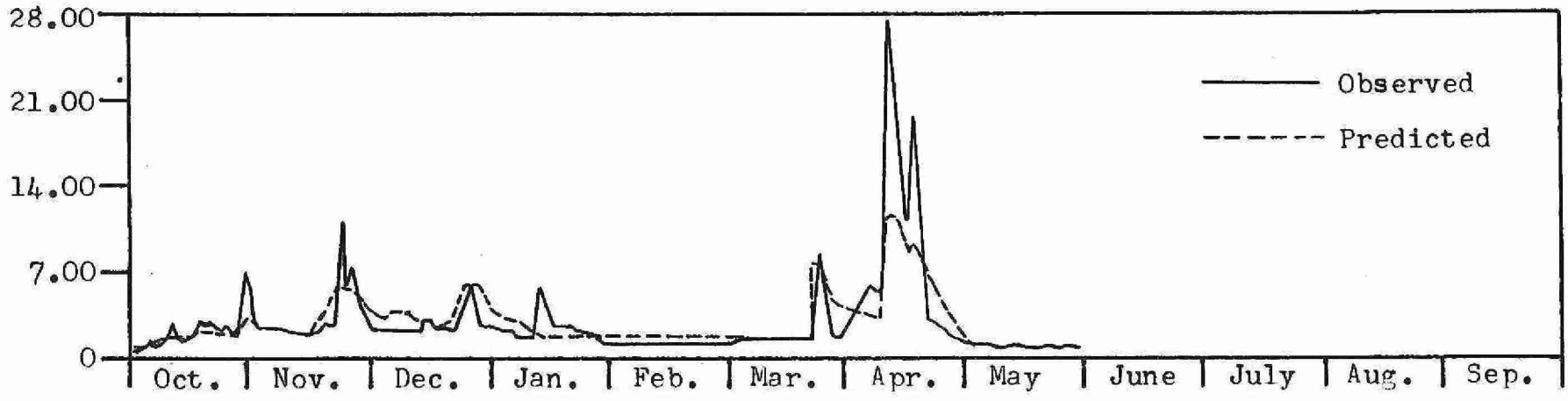
TOTAL FOR WATER YEAR = 646.76



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - HARP LAKE #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.53	2.99	3.76	2.96	1.16	0.95	4.26	0.93	0.39	0.89	1.02	3.08
2	0.50	3.39	3.45	2.72	1.15	0.95	4.11	0.83	0.37	0.81	0.92	2.75
3	0.48	3.02	3.19	2.52	1.15	0.94	3.72	0.75	0.35	0.73	0.83	2.42
4	0.69	2.70	2.96	2.35	1.14	0.94	3.26	0.68	0.34	0.67	0.75	2.12
5	0.77	2.43	2.76	2.20	1.13	0.93	2.94	0.61	0.33	0.61	0.70	1.86
6	0.99	2.22	4.03	2.07	1.12	0.92	2.68	0.57	0.52	0.56	0.65	1.64
7	1.00	2.04	4.16	1.96	1.11	0.92	4.09	0.53	0.55	0.62	0.60	1.45
8	0.94	1.88	3.79	1.86	1.10	0.91	9.13	0.50	0.51	0.65	0.55	1.29
9	0.86	1.76	3.46	1.78	1.10	0.91	13.25	0.46	0.47	0.62	0.52	1.20
10	0.79	1.66	3.19	1.71	1.09	0.90	13.18	0.43	0.44	0.57	0.49	1.10
11	0.80	1.58	2.95	1.64	1.08	0.89	11.56	0.41	0.41	0.53	0.46	0.98
12	1.35	1.51	2.75	1.59	1.07	0.89	10.15	0.38	0.39	0.49	0.44	0.89
13	1.42	1.47	2.57	1.54	1.07	0.88	8.83	0.38	0.37	0.46	0.43	0.92
14	1.30	1.43	2.42	1.50	1.06	0.88	9.54	0.37	0.57	0.45	0.41	0.87
15	1.17	1.41	2.29	1.46	1.05	0.87	8.95	0.35	0.60	0.43	0.40	0.79
16	1.06	1.39	2.17	1.42	1.05	0.86	7.72	0.34	0.55	0.41	0.38	0.77
17	0.96	1.38	2.07	1.40	1.04	0.86	6.67	0.34	0.51	0.39	0.37	2.17
18	0.87	1.38	1.99	1.37	1.03	0.85	5.77	0.36	0.48	0.37	0.36	2.42
19	1.13	2.37	1.91	1.34	1.02	0.85	4.99	0.35	2.80	0.36	0.35	2.12
20	1.71	2.59	1.85	1.32	1.02	3.10	4.32	0.33	3.33	0.45	0.34	1.87
21	1.71	2.59	1.79	1.30	1.01	7.75	3.74	0.32	2.92	0.46	0.68	1.65
22	1.52	3.94	1.74	1.29	1.00	8.17	3.24	0.31	2.54	0.47	0.88	1.48
23	1.96	5.74	2.90	1.27	1.00	7.10	2.81	0.30	2.21	0.46	0.84	1.32
24	1.94	5.71	5.83	1.25	0.99	6.18	2.44	0.29	1.93	0.43	0.77	1.18
25	1.72	5.29	6.12	1.24	0.99	5.40	2.12	0.29	1.69	0.41	0.70	1.10
26	1.53	5.30	5.43	1.23	0.98	4.73	1.84	0.28	1.49	0.91	0.64	1.01
27	1.36	5.11	4.85	1.22	0.97	4.38	1.60	0.28	1.32	1.00	0.59	0.91
28	1.22	4.82	4.35	1.20	0.97	4.46	1.39	0.27	1.17	1.43	0.55	0.83
29	1.10	4.44	3.92	1.19	0.96	4.39	1.21	0.27	1.09	1.45	0.52	0.76
30	1.00	4.07	3.55	1.18	0.0	4.21	1.04	0.38	1.00	1.29	0.55	0.70
31	0.97	0.0	3.23	1.17	0.0	4.40	0.0	0.41	0.0	1.14	2.67	0.0
TOT	35.35	87.59	101.40	50.26	30.61	81.36	160.59	13.32	31.62	20.53	20.36	43.68

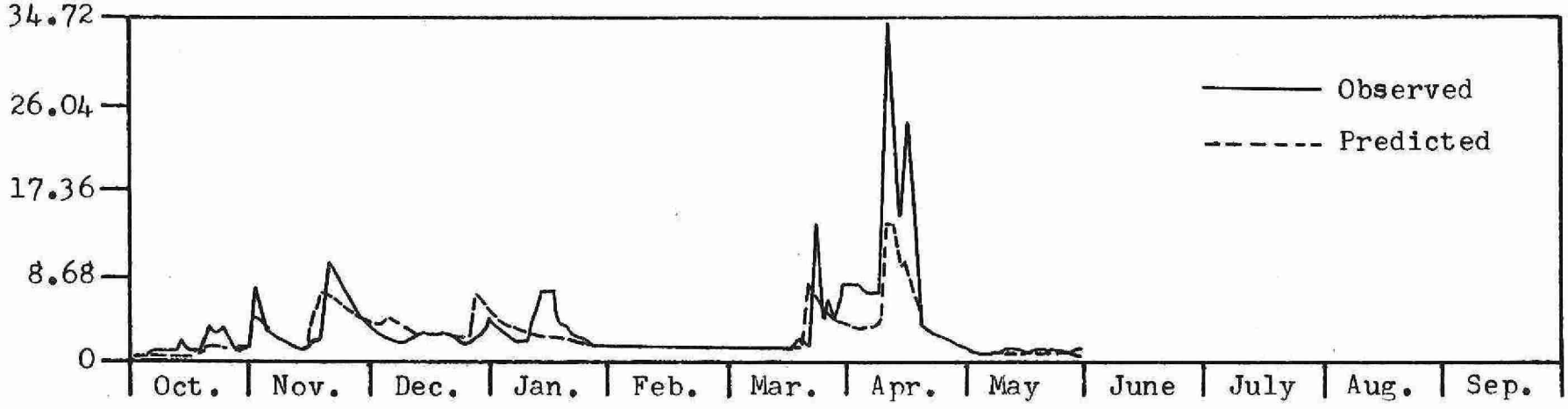
TOTAL FOR WATER YEAR = 676.69



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - HARP LAKE #5

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.42	3.70	3.84	2.44	0.74	0.46	3.59	0.67	1.23	2.43	4.35	10.48
2	0.42	3.96	3.48	2.20	0.73	0.45	3.39	0.60	1.07	2.07	3.66	9.67
3	0.41	3.42	3.18	2.01	0.71	0.44	2.95	0.54	0.93	1.77	3.09	8.27
4	0.51	2.98	2.93	1.84	0.70	0.44	2.48	0.49	0.82	1.53	2.62	6.88
5	0.54	2.62	2.72	1.70	0.69	0.43	2.16	0.45	0.73	1.33	2.85	5.74
6	0.67	2.35	4.26	1.58	0.68	0.42	1.93	0.53	2.09	1.16	2.60	4.81
7	0.66	2.13	4.26	1.48	0.67	0.41	3.59	0.56	2.20	2.30	2.29	4.04
8	0.64	1.95	3.80	1.40	0.66	0.41	9.92	0.58	1.87	3.25	1.99	3.41
9	0.60	1.81	3.41	1.33	0.65	0.40	14.91	0.54	1.69	3.00	1.72	3.93
10	0.56	1.71	3.09	1.26	0.64	0.39	14.53	0.50	1.48	2.54	1.50	3.60
11	0.61	1.63	2.82	1.21	0.63	0.39	12.36	0.46	1.35	2.16	1.53	3.05
12	1.01	1.57	2.60	1.16	0.62	0.38	10.60	0.43	1.19	1.85	1.40	2.60
13	1.03	1.53	2.41	1.12	0.61	0.38	8.94	0.59	1.04	1.60	1.86	3.62
14	0.95	1.51	2.25	1.08	0.60	0.37	10.35	0.59	2.66	1.88	2.08	3.45
15	0.87	1.49	2.11	1.05	0.59	0.36	9.52	0.54	2.73	1.76	1.89	2.93
16	0.78	1.49	2.00	1.02	0.58	0.36	7.94	0.49	2.31	1.58	1.64	3.42
17	0.71	1.49	1.90	0.99	0.57	0.35	6.62	0.66	1.96	1.43	1.43	7.60
18	0.66	1.50	1.81	0.97	0.56	0.35	5.53	0.83	1.95	1.34	1.26	7.53
19	0.99	2.78	1.74	0.95	0.55	0.34	4.63	0.78	8.91	1.21	1.12	6.28
20	1.58	2.96	1.67	0.92	0.54	3.24	3.88	0.70	10.16	2.48	1.01	5.25
21	1.54	2.94	1.61	0.91	0.53	8.95	3.27	0.62	8.65	2.50	3.64	4.42
22	1.35	4.64	1.56	0.89	0.52	8.86	2.75	0.56	7.24	3.04	5.38	4.43
23	1.98	6.78	2.58	0.87	0.51	7.33	2.32	0.51	6.04	2.83	4.93	3.92
24	1.95	6.50	6.15	0.85	0.51	6.08	1.96	0.47	5.03	2.41	4.13	3.32
25	1.68	5.89	6.21	0.84	0.50	5.05	1.68	0.44	4.28	2.20	3.49	3.69
26	1.46	5.86	5.32	0.82	0.49	4.20	1.43	0.41	3.61	5.28	3.26	3.39
27	1.28	5.55	4.59	0.81	0.48	3.77	1.21	0.39	3.03	5.65	2.86	3.23
28	1.13	5.16	3.99	0.79	0.47	3.88	1.05	0.37	2.56	7.96	2.49	2.84
29	1.02	4.67	3.49	0.78	0.47	3.76	0.89	0.46	3.08	7.47	2.69	2.43
30	0.99	4.21	3.07	0.76	0.0	3.54	0.76	1.19	2.85	6.22	3.64	2.09
31	1.01	0.0	2.73	0.75	0.0	3.80	0.0	1.38	0.0	5.19	10.00	0.0
TOT	30.04	96.78	97.57	36.78	17.15	69.99	157.13	18.36	94.74	89.44	88.40	140.31

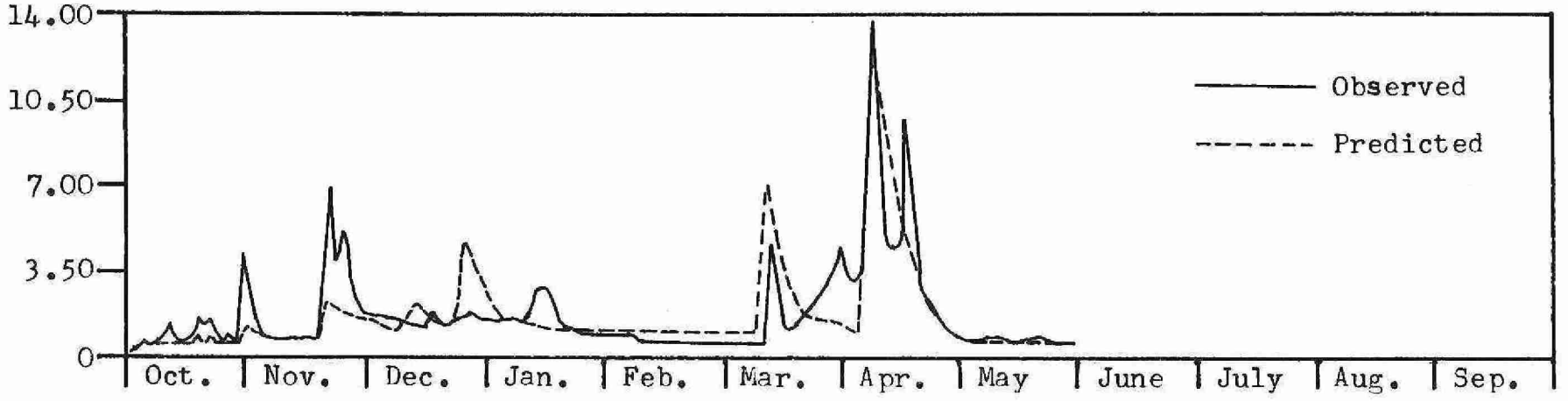
TOTAL FOR WATER YEAR = 936.70



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - HARP LAKE #6

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.42	1.14	1.21	1.48	0.78	0.69	1.51	0.49	0.49	0.61	0.79	2.51
2	0.41	1.38	1.13	1.33	0.78	0.68	1.47	0.48	0.47	0.57	0.70	2.02
3	0.41	1.17	1.07	1.22	0.78	0.68	1.34	0.47	0.46	0.54	0.64	1.65
4	0.51	1.01	1.03	1.14	0.77	0.68	1.16	0.46	0.45	0.51	0.59	1.35
5	0.55	0.89	0.99	1.07	0.77	0.67	1.07	0.45	0.44	0.49	0.56	1.13
6	0.61	0.81	1.88	1.02	0.76	0.67	1.01	0.45	0.60	0.48	0.53	0.96
7	0.61	0.75	2.18	0.98	0.76	0.67	2.39	0.45	0.65	0.54	0.50	0.84
8	0.56	0.70	1.87	0.95	0.76	0.66	7.95	0.45	0.59	0.59	0.49	0.74
9	0.52	0.67	1.63	0.93	0.75	0.66	12.46	0.44	0.55	0.58	0.47	0.69
10	0.49	0.66	1.45	0.91	0.75	0.66	11.80	0.44	0.52	0.54	0.46	0.64
11	0.48	0.64	1.31	0.90	0.75	0.66	9.26	0.44	0.49	0.51	0.45	0.59
12	0.67	0.64	1.21	0.88	0.74	0.65	7.26	0.44	0.47	0.49	0.44	0.56
13	0.72	0.64	1.13	0.87	0.74	0.65	5.71	0.45	0.45	0.48	0.45	0.58
14	0.64	0.64	1.07	0.86	0.74	0.65	5.75	0.45	0.63	0.47	0.45	0.58
15	0.58	0.65	1.02	0.86	0.73	0.64	5.26	0.44	0.69	0.47	0.44	0.54
16	0.54	0.66	0.98	0.85	0.73	0.64	4.14	0.44	0.62	0.46	0.44	0.53
17	0.50	0.67	0.95	0.84	0.73	0.64	3.29	0.45	0.57	0.45	0.43	1.20
18	0.48	0.68	0.93	0.84	0.72	0.63	2.64	0.45	0.53	0.44	0.43	1.41
19	0.54	0.98	0.91	0.83	0.72	0.63	2.14	0.45	2.59	0.44	0.43	1.17
20	0.71	1.10	0.90	0.83	0.72	2.24	1.76	0.44	3.31	0.51	0.42	1.00
21	0.72	1.05	0.88	0.82	0.71	6.87	1.46	0.44	2.63	0.54	0.68	0.86
22	0.64	1.55	0.87	0.82	0.71	7.69	1.24	0.43	2.10	0.54	0.85	0.77
23	0.73	2.37	2.00	0.82	0.71	5.99	1.06	0.43	1.70	0.53	0.79	0.69
24	0.74	2.40	4.64	0.81	0.70	4.71	0.92	0.43	1.39	0.50	0.70	0.63
25	0.65	2.05	5.02	0.81	0.70	3.73	0.82	0.43	1.16	0.48	0.63	0.60
26	0.59	1.89	4.02	0.80	0.70	2.99	0.73	0.42	0.98	0.89	0.58	0.57
27	0.54	1.73	3.26	0.80	0.70	2.46	0.66	0.42	0.85	1.02	0.54	0.54
28	0.51	1.56	2.69	0.80	0.69	2.16	0.60	0.42	0.75	1.24	0.51	0.51
29	0.48	1.41	2.25	0.79	0.69	1.91	0.55	0.42	0.71	1.25	0.49	0.50
30	0.46	1.30	1.92	0.79	0.0	1.66	0.51	0.49	0.67	1.05	0.51	0.48
31	0.45	0.0	1.67	0.79	0.0	1.60	0.0	0.52	0.0	0.90	2.03	0.0
TOT	17.48	33.79	54.08	28.47	21.30	56.52	97.93	13.88	28.52	19.13	18.41	26.85

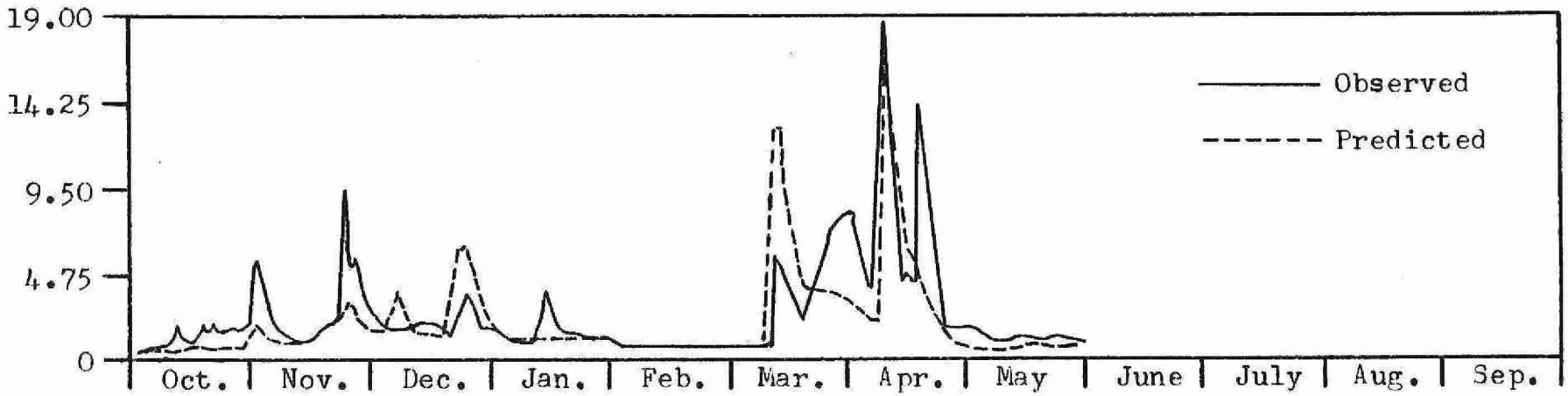
TOTAL FOR WATER YEAR = 416.36



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - HARP LAKE #6A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.37	1.32	1.30	1.59	0.60	0.50	3.71	0.41	0.0	0.0	0.0	0.0
2	0.37	1.57	1.18	1.35	0.59	0.50	3.43	0.40	0.0	0.0	0.0	0.0
3	0.36	1.27	1.09	1.18	0.59	0.49	2.85	0.39	0.0	0.0	0.0	0.0
4	0.49	1.06	1.02	1.05	0.58	0.49	2.19	0.39	0.0	0.0	0.0	0.0
5	0.54	0.90	0.97	0.95	0.58	0.49	1.80	0.38	0.0	0.0	0.0	0.0
6	0.63	0.79	3.35	0.88	0.58	0.48	1.54	0.38	0.0	0.0	0.0	0.0
7	0.63	0.72	3.92	0.83	0.57	0.48	3.65	0.38	0.0	0.0	0.0	0.0
8	0.57	0.66	3.09	0.79	0.57	0.48	11.17	0.38	0.0	0.0	0.0	0.0
9	0.51	0.63	2.48	0.76	0.57	0.48	16.85	0.37	0.0	0.0	0.0	0.0
10	0.47	0.60	2.03	0.73	0.56	0.47	15.48	0.37	0.0	0.0	0.0	0.0
11	0.46	0.59	1.71	0.72	0.56	0.47	11.75	0.37	0.0	0.0	0.0	0.0
12	0.71	0.58	1.46	0.70	0.56	0.47	8.91	0.37	0.0	0.0	0.0	0.0
13	0.76	0.58	1.28	0.69	0.55	0.46	6.75	0.38	0.0	0.0	0.0	0.0
14	0.66	0.58	1.15	0.68	0.55	0.46	6.95	0.38	0.0	0.0	0.0	0.0
15	0.58	0.59	1.05	0.67	0.55	0.46	6.25	0.38	0.0	0.0	0.0	0.0
16	0.52	0.59	0.98	0.66	0.54	0.46	4.73	0.37	0.0	0.0	0.0	0.0
17	0.48	0.60	0.93	0.66	0.54	0.45	3.61	0.38	0.0	0.0	0.0	0.0
18	0.45	0.61	0.88	0.65	0.54	0.45	2.79	0.39	0.0	0.0	0.0	0.0
19	0.53	1.08	0.85	0.65	0.53	0.45	2.18	0.38	0.0	0.0	0.0	0.0
20	0.76	1.22	0.83	0.64	0.53	4.12	1.73	0.38	0.0	0.0	0.0	0.0
21	0.76	1.13	0.81	0.64	0.53	11.88	1.39	0.37	0.0	0.0	0.0	0.0
22	0.66	1.93	0.79	0.63	0.52	12.36	1.14	0.36	0.0	0.0	0.0	0.0
23	0.76	3.22	3.09	0.63	0.52	9.17	0.96	0.36	0.0	0.0	0.0	0.0
24	0.75	3.19	8.11	0.63	0.52	6.83	0.81	0.36	0.0	0.0	0.0	0.0
25	0.65	2.61	8.44	0.62	0.51	5.12	0.71	0.36	0.0	0.0	0.0	0.0
26	0.57	2.38	6.38	0.62	0.51	3.86	0.62	0.35	0.0	0.0	0.0	0.0
27	0.52	2.15	4.87	0.61	0.51	3.31	0.56	0.35	0.0	0.0	0.0	0.0
28	0.47	1.89	3.76	0.61	0.51	3.59	0.51	0.35	0.0	0.0	0.0	0.0
29	0.44	1.64	2.95	0.61	0.50	3.64	0.46	0.35	0.0	0.0	0.0	0.0
30	0.42	1.44	2.35	0.60	0.0	3.43	0.43	0.44	0.0	0.0	0.0	0.0
31	0.42	0.0	1.91	0.60	0.0	3.81	0.0	0.46	0.0	0.0	0.0	0.0
TOT	17.28	38.11	75.02	23.65	15.68	80.08	125.93	11.75	0.0	0.0	0.0	0.0

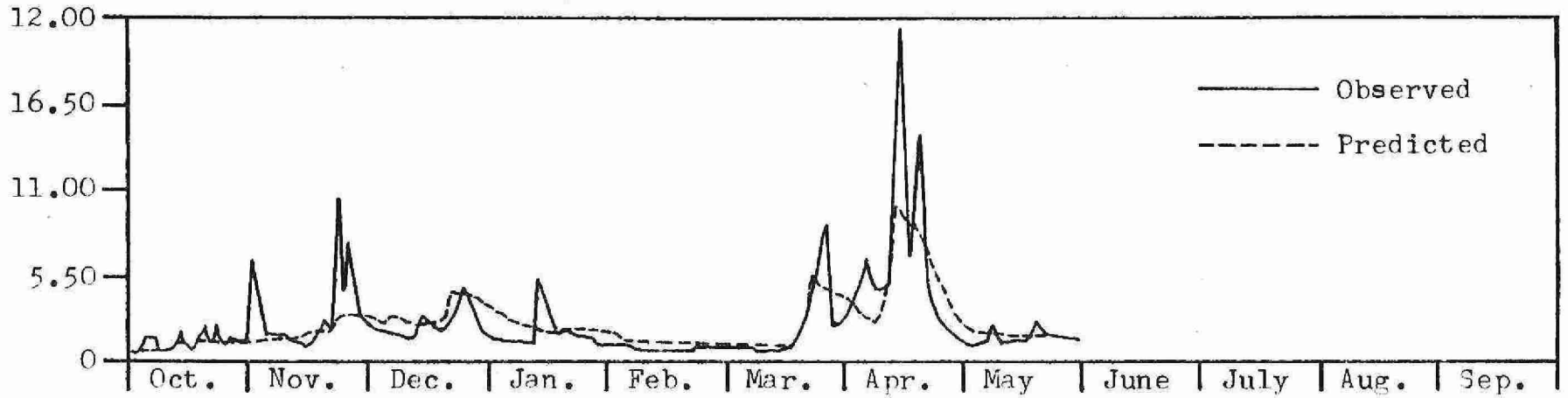
TOTAL FOR WATER YEAR = 387.69



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - JERRY LAKE #1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.53	1.22	2.67	2.81	1.13	0.90	3.55	1.82	0.41	1.06	0.93	1.99
2	0.51	1.31	2.55	2.65	1.12	0.90	3.48	1.68	0.40	0.98	0.87	1.85
3	0.50	1.26	2.44	2.52	1.11	0.89	3.26	1.54	0.39	0.92	0.82	1.72
4	0.58	1.22	2.34	2.39	1.09	0.89	3.00	1.43	0.37	0.86	0.77	1.59
5	0.59	1.18	2.25	2.28	1.08	0.88	2.82	1.32	0.36	0.81	0.75	1.47
6	0.63	1.15	3.08	2.17	1.07	0.87	2.65	1.23	0.49	0.76	0.71	1.37
7	0.62	1.13	3.10	2.08	1.06	0.87	3.86	1.14	0.50	0.78	0.67	1.27
8	0.60	1.11	2.94	1.99	1.05	0.86	7.40	1.06	0.48	0.78	0.64	1.18
9	0.57	1.10	2.79	1.91	1.04	0.86	9.95	0.99	0.46	0.74	0.61	1.13
10	0.55	1.09	2.65	1.84	1.03	0.85	10.09	0.92	0.44	0.70	0.58	1.06
11	0.54	1.08	2.53	1.77	1.03	0.85	9.46	0.86	0.42	0.66	0.56	0.99
12	0.72	1.08	2.42	1.71	1.02	0.84	8.91	0.80	0.41	0.62	0.53	0.93
13	0.73	1.08	2.31	1.66	1.01	0.84	8.19	0.76	0.40	0.59	0.52	0.93
14	0.70	1.08	2.22	1.60	1.00	0.83	8.57	0.72	0.54	0.57	0.51	0.88
15	0.66	1.09	2.13	1.56	0.99	0.83	8.08	0.68	0.55	0.55	0.49	0.83
16	0.63	1.10	2.05	1.51	0.99	0.83	7.37	0.64	0.53	0.52	0.47	0.80
17	0.60	1.11	1.98	1.47	0.98	0.82	6.72	0.62	0.50	0.50	0.45	1.41
18	0.58	1.12	1.92	1.44	0.97	0.82	6.12	0.59	0.48	0.48	0.44	1.45
19	0.64	1.61	1.85	1.40	0.97	0.81	5.58	0.56	2.17	0.46	0.43	1.34
20	0.79	1.70	1.80	1.37	0.96	2.22	5.09	0.53	2.39	0.57	0.42	1.25
21	0.78	1.71	1.75	1.34	0.95	5.49	4.64	0.51	2.20	0.57	0.61	1.17
22	0.74	2.25	1.70	1.32	0.95	5.66	4.23	0.49	2.02	0.59	0.69	1.10
23	0.84	3.04	2.57	1.29	0.94	5.20	3.85	0.47	1.86	0.57	0.66	1.03
24	0.83	3.07	4.33	1.27	0.94	4.79	3.51	0.45	1.72	0.54	0.63	0.97
25	0.78	3.02	4.37	1.25	0.93	4.41	3.19	0.43	1.59	0.52	0.60	0.92
26	0.74	3.05	4.08	1.23	0.92	4.07	2.91	0.41	1.47	0.85	0.57	0.87
27	0.70	3.00	3.82	1.21	0.92	3.83	2.64	0.40	1.36	0.88	0.55	0.82
28	0.67	2.96	3.57	1.19	0.91	3.83	2.40	0.39	1.26	1.15	0.53	0.78
29	0.64	2.87	3.35	1.17	0.91	3.73	2.18	0.38	1.21	1.14	0.51	0.74
30	0.61	2.75	3.15	1.16	0.0	3.58	1.98	0.42	1.13	1.06	0.53	0.70
31	0.59	0.0	2.97	1.14	0.0	3.66	0.0	0.43	0.0	0.99	1.85	0.0
TOT	20.19	51.56	83.70	51.71	29.09	66.71	155.68	24.65	28.51	22.78	19.89	34.56

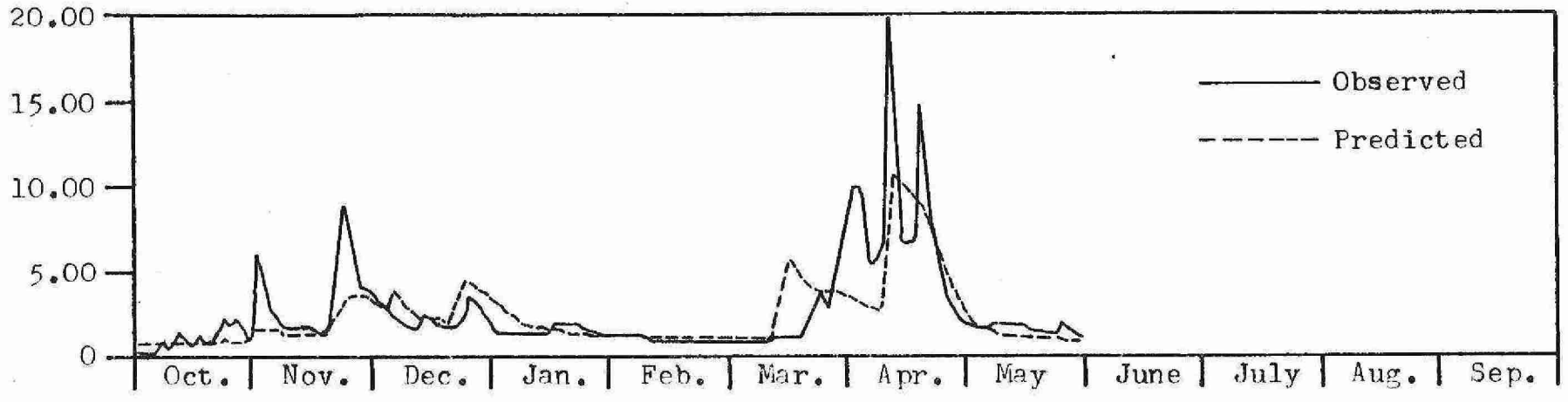
TOTAL FOR WATER YEAR = 589.02



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - JERRY LAKE #3

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.64	1.38	2.96	2.87	1.02	0.75	3.93	1.84	0.47	1.17	1.07	2.31
2	0.62	1.59	2.81	2.70	1.00	0.74	3.86	1.69	0.45	1.09	1.01	2.15
3	0.60	1.52	2.68	2.54	0.99	0.74	3.61	1.56	0.44	1.02	0.95	1.99
4	0.69	1.45	2.55	2.40	0.98	0.73	3.28	1.43	0.42	0.96	0.89	1.83
5	0.72	1.40	2.44	2.27	0.96	0.72	3.06	1.32	0.41	0.90	0.86	1.69
6	0.77	1.36	3.28	2.15	0.95	0.72	2.86	1.23	0.54	0.84	0.82	1.57
7	0.76	1.32	3.43	2.04	0.94	0.71	4.05	1.14	0.57	0.86	0.78	1.45
8	0.74	1.29	3.22	1.95	0.93	0.70	7.74	1.06	0.55	0.86	0.74	1.35
9	0.71	1.27	3.04	1.86	0.92	0.70	10.74	0.99	0.52	0.82	0.70	1.29
10	0.68	1.25	2.88	1.78	0.91	0.69	11.16	0.92	0.50	0.78	0.67	1.21
11	0.67	1.23	2.72	1.71	0.90	0.69	10.48	0.86	0.48	0.74	0.64	1.13
12	0.86	1.22	2.59	1.64	0.89	0.68	9.82	0.81	0.46	0.70	0.62	1.06
13	0.91	1.22	2.46	1.58	0.88	0.67	9.01	0.77	0.45	0.67	0.61	1.05
14	0.87	1.21	2.35	1.53	0.87	0.67	9.28	0.72	0.60	0.64	0.59	1.01
15	0.83	1.21	2.25	1.47	0.86	0.66	8.89	0.68	0.63	0.62	0.57	0.96
16	0.79	1.21	2.15	1.43	0.85	0.66	8.05	0.65	0.60	0.59	0.55	0.92
17	0.75	1.22	2.07	1.39	0.84	0.65	7.29	0.62	0.57	0.57	0.53	1.55
18	0.72	1.22	1.99	1.35	0.84	0.65	6.60	0.61	0.55	0.55	0.52	1.71
19	0.79	1.73	1.92	1.31	0.83	0.64	5.98	0.58	2.24	0.53	0.50	1.59
20	0.95	1.91	1.85	1.28	0.82	2.08	5.41	0.55	2.75	0.63	0.49	1.48
21	0.97	1.90	1.79	1.25	0.81	5.51	4.90	0.53	2.52	0.65	0.69	1.37
22	0.92	2.45	1.74	1.22	0.81	6.09	4.44	0.51	2.31	0.67	0.80	1.29
23	1.03	3.35	2.56	1.19	0.80	5.54	4.03	0.49	2.12	0.66	0.78	1.21
24	1.04	3.50	4.44	1.17	0.79	5.05	3.65	0.47	1.94	0.63	0.74	1.13
25	0.98	3.41	4.72	1.14	0.78	4.60	3.31	0.45	1.79	0.60	0.71	1.08
26	0.93	3.44	4.37	1.12	0.78	4.19	3.00	0.44	1.65	0.93	0.68	1.03
27	0.88	3.39	4.05	1.10	0.77	3.96	2.71	0.42	1.52	1.02	0.65	0.97
28	0.84	3.34	3.76	1.08	0.76	4.01	2.46	0.41	1.40	1.28	0.62	0.92
29	0.80	3.23	3.50	1.06	0.76	3.98	2.23	0.40	1.34	1.33	0.60	0.87
30	0.76	3.08	3.27	1.05	0.0	3.87	2.01	0.46	1.26	1.23	0.62	0.83
31	0.74	0.0	3.06	1.03	0.0	3.99	0.0	0.48	0.0	1.15	1.94	0.0
TOT	24.96	58.32	88.90	49.64	25.23	66.04	167.83	25.09	32.08	25.69	22.92	40.01

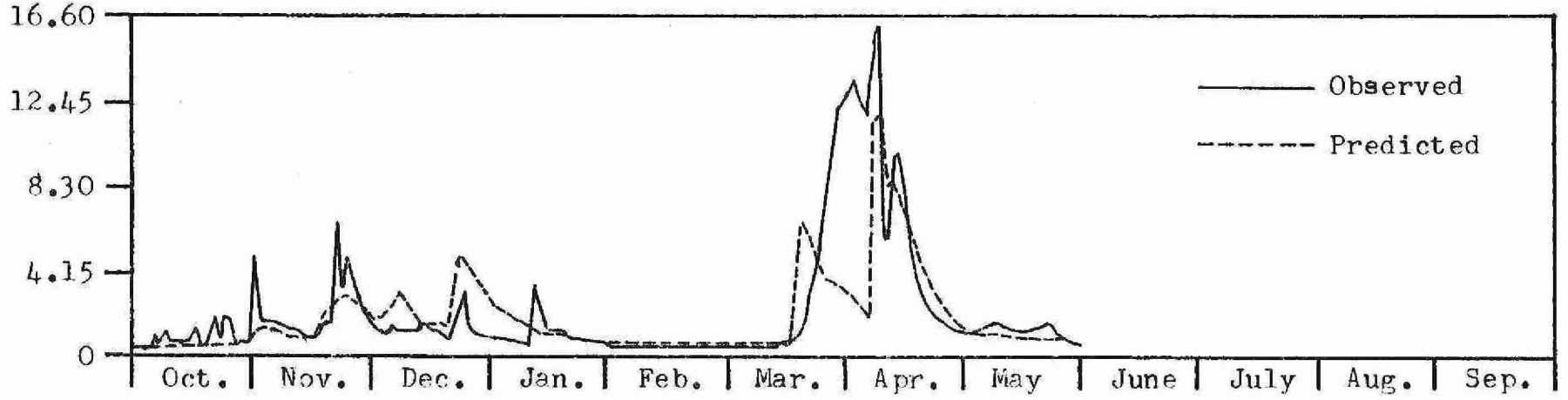
TOTAL FOR WATER YEAR = 626.70



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - JERRY LAKE #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.54	1.27	1.92	2.32	0.67	0.57	3.92	1.24	0.51	0.99	0.95	2.11
2	0.53	1.37	1.78	2.11	0.67	0.56	3.77	1.14	0.50	0.92	0.88	1.92
3	0.52	1.27	1.65	1.93	0.66	0.56	3.41	1.05	0.49	0.86	0.83	1.74
4	0.61	1.18	1.55	1.77	0.66	0.56	3.01	0.97	0.48	0.81	0.78	1.58
5	0.62	1.10	1.45	1.63	0.65	0.55	2.74	0.90	0.47	0.76	0.76	1.44
6	0.67	1.03	2.75	1.51	0.65	0.55	2.49	0.85	0.60	0.72	0.72	1.31
7	0.66	0.98	2.83	1.41	0.64	0.55	3.96	0.80	0.62	0.75	0.69	1.20
8	0.64	0.93	2.57	1.32	0.64	0.55	8.50	0.75	0.59	0.76	0.66	1.11
9	0.61	0.89	2.34	1.24	0.63	0.54	11.69	0.71	0.57	0.73	0.63	1.05
10	0.59	0.85	2.14	1.17	0.63	0.54	11.61	0.68	0.55	0.69	0.61	0.98
11	0.58	0.82	1.97	1.11	0.63	0.54	10.50	0.65	0.53	0.66	0.59	0.92
12	0.77	0.80	1.81	1.05	0.62	0.54	9.52	0.62	0.52	0.63	0.57	0.86
13	0.78	0.78	1.68	1.01	0.62	0.53	8.43	0.60	0.50	0.61	0.57	0.86
14	0.74	0.76	1.57	0.96	0.62	0.53	8.70	0.59	0.66	0.59	0.56	0.83
15	0.70	0.75	1.47	0.93	0.61	0.53	8.01	0.57	0.67	0.58	0.54	0.78
16	0.67	0.74	1.38	0.90	0.61	0.53	7.03	0.55	0.64	0.56	0.53	0.76
17	0.64	0.73	1.30	0.87	0.60	0.52	6.18	0.55	0.61	0.55	0.52	1.37
18	0.61	0.73	1.23	0.84	0.60	0.52	5.44	0.54	0.59	0.53	0.51	1.44
19	0.68	1.26	1.17	0.82	0.60	0.52	4.80	0.53	2.42	0.52	0.50	1.32
20	0.83	1.35	1.12	0.80	0.60	2.57	4.23	0.51	2.71	0.63	0.49	1.21
21	0.83	1.31	1.08	0.78	0.59	7.18	3.74	0.50	2.42	0.64	0.68	1.12
22	0.78	1.90	1.04	0.77	0.59	7.38	3.32	0.49	2.17	0.65	0.76	1.04
23	0.88	2.81	2.34	0.75	0.59	6.48	2.94	0.49	1.95	0.64	0.74	0.97
24	0.87	2.80	4.90	0.74	0.58	5.69	2.62	0.48	1.75	0.61	0.70	0.91
25	0.81	2.65	4.96	0.73	0.58	5.01	2.33	0.47	1.59	0.59	0.67	0.87
26	0.76	2.61	4.41	0.72	0.58	4.42	2.08	0.47	1.44	0.91	0.64	0.83
27	0.72	2.50	3.93	0.71	0.57	4.08	1.86	0.46	1.31	0.95	0.62	0.78
28	0.69	2.40	3.51	0.70	0.57	4.15	1.67	0.46	1.20	1.20	0.59	0.74
29	0.65	2.24	3.15	0.69	0.57	4.07	1.50	0.45	1.15	1.20	0.58	0.71
30	0.62	2.06	2.83	0.69	0.0	3.91	1.36	0.51	1.07	1.10	0.59	0.68
31	0.61	0.0	2.56	0.68	0.0	4.08	0.0	0.52	0.0	1.02	1.93	0.0
TOT	21.21	42.89	70.38	33.65	17.82	69.29	151.36	20.06	31.26	23.38	21.41	33.47

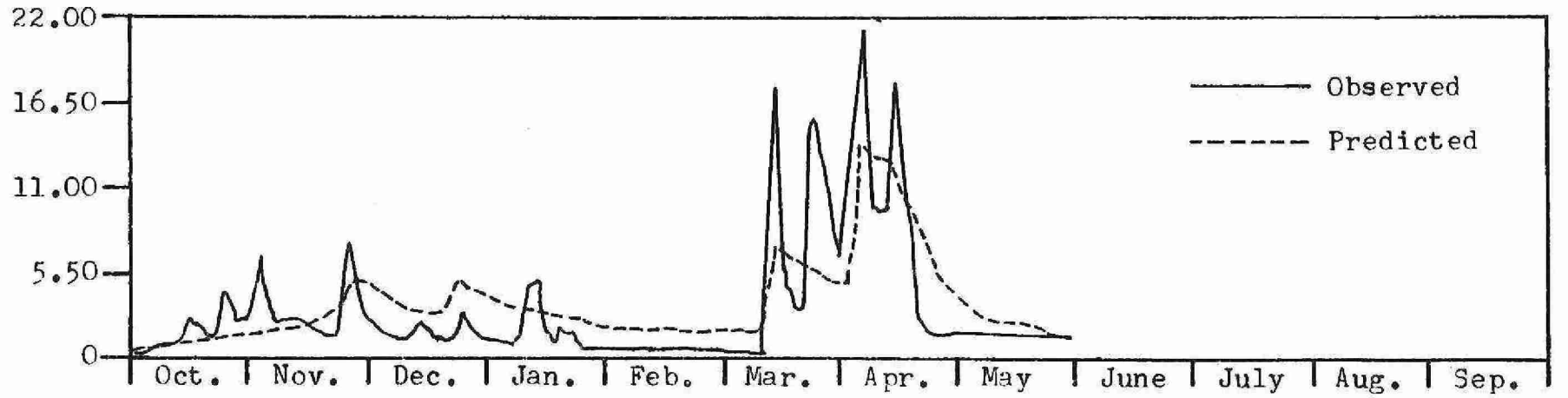
TOTAL FOR WATER YEAR = 536.18



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - DICKIE LAKE #5

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.55	1.16	4.94	3.99	1.53	1.10	5.50	2.50	0.37	1.22	3.50	1.26
2	0.52	1.78	4.69	3.77	1.51	1.09	5.26	2.28	0.35	1.12	3.19	1.23
3	0.50	1.72	4.46	3.58	1.49	1.08	5.01	2.08	0.33	1.03	2.90	1.26
4	0.57	1.68	4.25	3.40	1.47	1.07	4.57	1.90	0.32	0.95	2.65	1.16
5	0.76	1.64	4.06	3.23	1.45	1.06	4.22	1.73	0.30	0.88	2.45	1.08
6	0.90	1.62	3.88	3.08	1.43	1.05	3.97	1.60	0.36	0.81	2.31	1.00
7	1.10	1.60	3.72	2.95	1.41	1.04	4.77	1.51	0.50	0.77	2.11	0.93
8	1.04	1.60	3.58	2.82	1.39	1.03	8.31	1.38	0.47	0.74	1.93	0.86
9	1.00	1.60	3.44	2.71	1.37	1.02	12.42	1.26	0.44	0.69	1.77	0.81
10	0.93	1.60	3.32	2.60	1.36	1.01	14.17	1.16	0.41	0.64	1.63	0.77
11	0.88	1.61	3.20	2.51	1.34	1.00	13.61	1.06	0.39	0.60	1.49	0.72
12	0.87	1.63	3.10	2.42	1.33	0.99	13.12	0.98	0.37	0.56	1.37	0.67
13	0.84	1.65	3.00	2.34	1.31	0.98	12.80	0.90	0.35	0.53	1.27	0.68
14	0.79	1.67	2.91	2.26	1.30	0.97	12.30	0.84	0.38	0.50	1.17	0.74
15	0.75	1.70	2.83	2.19	1.28	0.97	12.39	0.78	0.46	0.47	1.08	0.70
16	0.71	1.73	2.75	2.13	1.27	0.96	11.24	0.72	0.44	0.44	1.00	0.66
17	0.67	1.76	2.68	2.07	1.26	0.95	10.19	0.68	0.41	0.42	0.93	0.84
18	0.63	1.79	2.61	2.01	1.24	0.94	9.25	0.65	0.39	0.40	0.86	1.23
19	0.69	1.86	2.55	1.96	1.23	0.93	8.38	0.61	1.14	0.38	0.80	1.14
20	0.99	2.06	2.49	1.91	1.22	1.59	7.60	0.57	2.64	0.38	0.75	1.06
21	1.24	2.48	2.44	1.87	1.21	4.65	6.89	0.53	2.48	0.39	0.72	0.98
22	1.15	3.21	2.39	1.83	1.19	7.87	6.24	0.49	2.26	0.38	0.77	0.93
23	1.20	4.29	2.52	1.79	1.18	7.20	5.65	0.46	2.06	0.36	0.85	0.90
24	1.39	5.08	3.94	1.75	1.17	6.97	5.11	0.43	1.89	0.34	0.79	0.84
25	1.29	5.11	6.05	1.72	1.16	7.14	4.62	0.41	1.72	0.33	0.74	0.79
26	1.19	5.58	5.80	1.69	1.15	6.54	4.18	0.38	1.58	1.72	0.70	0.74
27	1.11	5.70	5.43	1.66	1.14	5.99	3.77	0.36	1.45	4.39	0.66	0.69
28	1.06	5.62	5.08	1.63	1.12	5.73	3.40	0.34	1.33	4.34	0.62	0.65
29	1.04	5.37	4.77	1.60	1.11	5.87	3.06	0.33	1.29	4.64	0.63	0.61
30	0.97	5.14	4.48	1.58	0.0	5.76	2.75	0.34	1.32	4.22	0.71	0.58
31	0.91	0.0	4.22	1.55	0.0	5.59	0.0	0.39	0.0	3.84	0.92	0.0
TOT	28.24	81.02	115.60	72.58	37.61	90.15	224.75	29.64	28.18	38.47	43.30	26.50

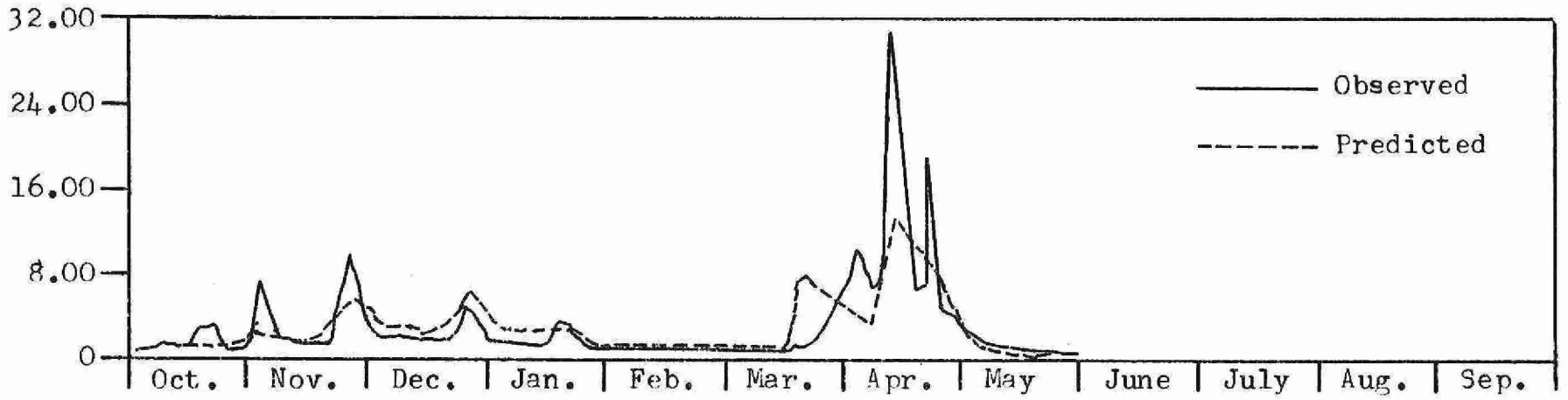
TOTAL FOR WATER YEAR = 816.02



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APTOS - DICKIE LAKE #6

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.52	1.41	4.30	3.83	1.43	1.11	5.53	2.00	0.36	1.13	3.36	1.19
2	0.50	1.62	4.06	3.59	1.41	1.10	5.28	1.81	0.35	1.03	3.03	1.23
3	0.48	1.55	3.83	3.37	1.39	1.09	4.87	1.63	0.33	0.95	2.74	1.18
4	0.67	1.49	3.63	3.18	1.38	1.08	4.41	1.48	0.32	0.87	2.48	1.09
5	0.77	1.45	3.45	3.00	1.37	1.07	4.07	1.35	0.31	0.81	2.31	1.01
6	1.00	1.41	3.29	2.85	1.35	1.07	3.78	1.27	0.46	0.75	2.12	0.93
7	1.03	1.39	3.14	2.71	1.34	1.06	5.99	1.18	0.50	0.72	1.93	0.87
8	0.98	1.37	3.01	2.58	1.33	1.05	10.62	1.07	0.47	0.69	1.75	0.81
9	0.92	1.36	2.89	2.47	1.31	1.04	14.20	0.98	0.44	0.64	1.60	0.76
10	0.86	1.36	2.78	2.36	1.30	1.04	14.51	0.90	0.42	0.60	1.46	0.72
11	0.82	1.36	2.69	2.27	1.29	1.03	13.63	0.83	0.40	0.56	1.33	0.67
12	0.80	1.37	2.60	2.19	1.28	1.02	13.27	0.76	0.38	0.53	1.22	0.63
13	0.76	1.38	2.52	2.11	1.27	1.01	12.36	0.71	0.36	0.50	1.12	0.71
14	0.71	1.39	2.44	2.04	1.26	1.01	12.45	0.66	0.46	0.47	1.04	0.71
15	0.67	1.41	2.38	1.98	1.24	1.00	11.71	0.61	0.47	0.45	0.96	0.66
16	0.64	1.43	2.31	1.92	1.23	0.99	10.50	0.57	0.45	0.43	0.89	0.63
17	0.60	1.46	2.26	1.87	1.22	0.98	9.41	0.56	0.42	0.41	0.82	1.03
18	0.58	1.49	2.21	1.82	1.21	0.98	8.44	0.53	0.40	0.39	0.77	1.12
19	0.71	1.57	2.16	1.77	1.20	0.97	7.57	0.50	2.13	0.38	0.72	1.03
20	1.06	1.84	2.12	1.73	1.20	2.60	6.78	0.47	2.68	0.40	0.67	0.96
21	1.11	2.35	2.08	1.70	1.19	7.45	6.08	0.44	2.44	0.40	0.67	0.89
22	1.02	3.25	2.04	1.66	1.18	8.39	5.45	0.42	2.21	0.38	0.78	0.86
23	1.21	4.49	2.69	1.63	1.17	7.58	4.88	0.40	2.00	0.37	0.78	0.82
24	1.21	4.67	5.60	1.60	1.16	7.80	4.37	0.38	1.81	0.35	0.73	0.77
25	1.12	4.99	6.40	1.57	1.15	7.40	3.91	0.36	1.64	0.34	0.68	0.72
26	1.04	5.26	5.97	1.55	1.14	6.70	3.50	0.34	1.49	3.59	0.65	0.68
27	0.96	5.27	5.51	1.53	1.13	6.07	3.13	0.33	1.36	4.47	0.61	0.64
28	0.95	5.05	5.09	1.50	1.12	6.08	2.79	0.32	1.24	4.79	0.58	0.60
29	0.91	4.77	4.72	1.48	1.12	6.10	2.48	0.31	1.29	4.60	0.64	0.57
30	0.85	4.52	4.39	1.46	0.0	5.85	2.21	0.37	1.23	4.14	0.71	0.55
31	0.80	0.0	4.09	1.44	0.0	5.78	0.0	0.38	0.0	3.73	1.11	0.0
TOT	26.26	73.69	106.67	66.76	36.36	97.50	218.20	23.92	28.83	39.85	40.23	25.05

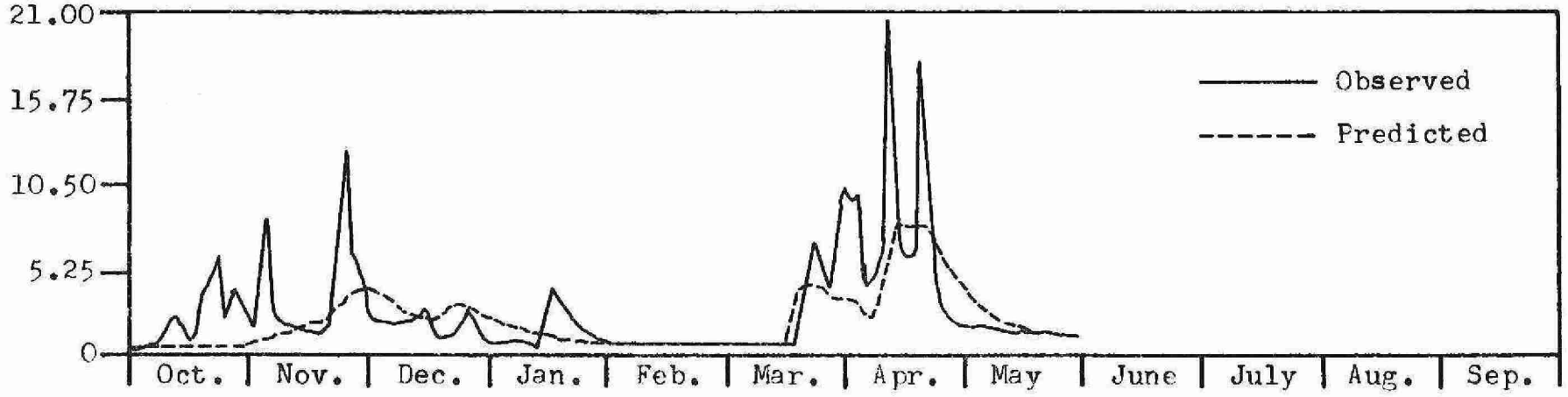
TOTAL FOR WATER YEAR = 783.32



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - DICKIE LAKE #8

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.30	0.57	3.96	2.43	0.53	0.13	3.06	2.34	0.48	0.59	1.40	0.53
2	0.29	0.70	3.78	2.32	0.51	0.13	2.95	2.22	0.46	0.56	1.33	0.55
3	0.28	0.82	3.61	2.20	0.48	0.12	2.80	2.10	0.43	0.53	1.26	0.53
4	0.34	0.94	3.45	2.10	0.46	0.12	2.64	1.99	0.41	0.51	1.20	0.50
5	0.34	1.07	3.30	1.99	0.44	0.11	2.51	1.88	0.39	0.48	1.16	0.48
6	0.41	1.19	3.16	1.90	0.42	0.11	2.39	1.79	0.43	0.46	1.10	0.46
7	0.40	1.31	3.02	1.81	0.40	0.10	3.53	1.70	0.41	0.45	1.04	0.44
8	0.39	1.43	2.88	1.72	0.38	0.10	6.03	1.61	0.39	0.43	0.99	0.42
9	0.37	1.54	2.76	1.64	0.36	0.09	7.73	1.52	0.37	0.41	0.94	0.41
10	0.36	1.65	2.63	1.56	0.34	0.09	7.88	1.44	0.36	0.39	0.89	0.39
11	0.35	1.76	2.52	1.48	0.33	0.08	7.63	1.36	0.34	0.37	0.85	0.37
12	0.34	1.86	2.41	1.41	0.31	0.08	7.58	1.29	0.32	0.35	0.81	0.36
13	0.33	1.96	2.30	1.34	0.30	0.08	7.28	1.23	0.31	0.34	0.77	0.38
14	0.32	2.05	2.20	1.28	0.28	0.07	7.41	1.16	0.33	0.32	0.73	0.36
15	0.31	2.13	2.10	1.22	0.27	0.07	7.13	1.10	0.32	0.31	0.70	0.35
16	0.30	2.21	2.01	1.16	0.26	0.07	6.69	1.04	0.31	0.30	0.66	0.34
17	0.29	2.28	1.92	1.10	0.25	0.06	6.28	1.00	0.29	0.28	0.63	0.47
18	0.28	2.35	1.84	1.05	0.24	0.06	5.89	0.95	0.28	0.27	0.60	0.45
19	0.32	2.42	1.76	1.00	0.22	0.06	5.53	0.90	0.98	0.26	0.57	0.43
20	0.42	2.55	1.68	0.95	0.21	0.88	5.18	0.85	0.95	0.26	0.55	0.41
21	0.40	2.76	1.61	0.91	0.20	3.80	4.84	0.81	0.90	0.25	0.53	0.39
22	0.39	3.12	1.54	0.86	0.19	3.85	4.53	0.76	0.86	0.24	0.55	0.39
23	0.46	3.66	1.71	0.82	0.19	3.65	4.23	0.73	0.81	0.23	0.53	0.37
24	0.44	3.81	3.33	0.78	0.18	3.82	3.94	0.69	0.77	0.22	0.50	0.36
25	0.42	3.99	3.44	0.75	0.17	3.76	3.67	0.65	0.73	0.21	0.48	0.34
26	0.40	4.14	3.29	0.71	0.16	3.56	3.41	0.62	0.70	1.63	0.46	0.33
27	0.39	4.19	3.13	0.68	0.15	3.37	3.16	0.59	0.66	1.55	0.44	0.32
28	0.39	4.16	2.98	0.64	0.15	3.36	2.92	0.56	0.63	1.74	0.42	0.30
29	0.37	4.10	2.83	0.61	0.14	3.34	2.70	0.53	0.65	1.65	0.43	0.29
30	0.36	4.03	2.69	0.58	0.0	3.23	2.48	0.53	0.62	1.56	0.44	0.28
31	0.35	0.0	2.56	0.56	0.0	3.16	0.0	0.50	0.0	1.48	0.56	0.0
TOT	11.10	70.74	82.40	39.54	8.52	41.52	144.00	36.44	15.93	18.66	23.55	11.99

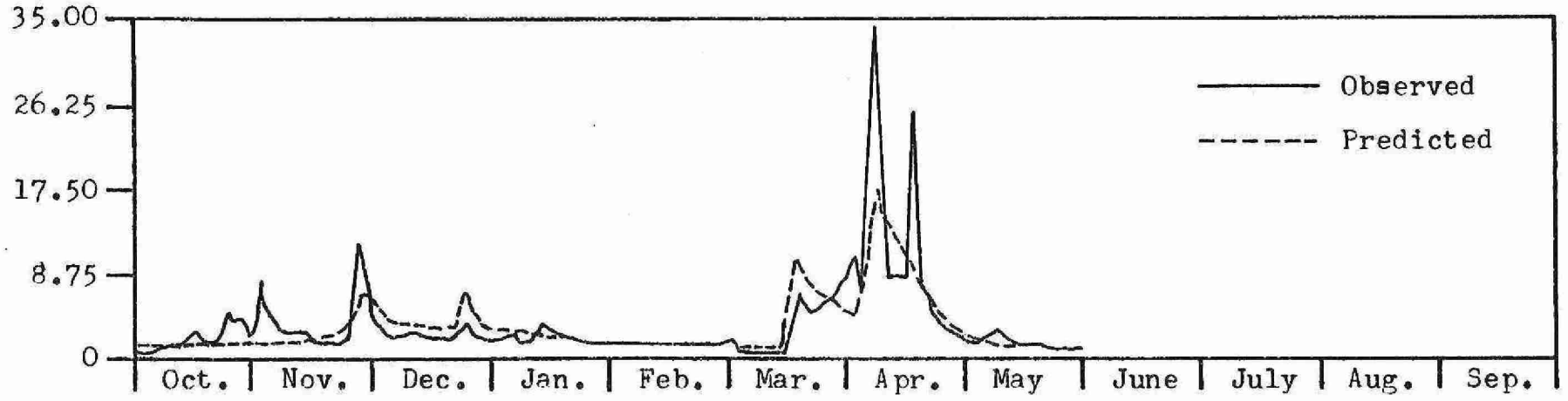
TOTAL FOR WATER YEAR = 504.39



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - DICKIE LAKE #10

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.55	2.17	5.06	3.70	1.36	1.00	5.40	1.59	0.36	1.30	4.13	1.70
2	0.52	2.39	4.70	3.44	1.35	0.99	5.16	1.41	0.34	1.16	3.63	1.79
3	0.50	2.21	4.39	3.21	1.33	0.98	4.67	1.25	0.32	1.04	3.20	1.69
4	0.85	2.07	4.11	3.01	1.32	0.97	4.13	1.12	0.30	0.94	2.83	1.51
5	1.01	1.96	3.87	2.84	1.30	0.96	3.79	1.00	0.29	0.85	2.63	1.36
6	1.46	1.87	3.66	2.68	1.29	0.95	3.53	0.98	0.56	0.77	2.36	1.22
7	1.47	1.80	3.47	2.54	1.27	0.94	6.65	0.90	0.61	0.76	2.10	1.11
8	1.39	1.74	3.30	2.42	1.26	0.93	12.62	0.81	0.56	0.71	1.86	1.00
9	1.28	1.70	3.15	2.31	1.24	0.92	16.98	0.73	0.51	0.65	1.66	0.93
10	1.16	1.67	3.02	2.21	1.23	0.91	17.12	0.66	0.47	0.59	1.48	0.86
11	1.14	1.65	2.90	2.12	1.22	0.90	15.92	0.60	0.43	0.55	1.33	0.79
12	1.11	1.65	2.79	2.05	1.20	0.89	15.54	0.55	0.40	0.51	1.20	0.73
13	1.04	1.65	2.70	1.98	1.19	0.89	14.24	0.52	0.38	0.47	1.08	0.86
14	0.96	1.66	2.61	1.92	1.18	0.88	14.55	0.48	0.55	0.44	0.99	0.86
15	0.89	1.67	2.53	1.86	1.17	0.87	13.39	0.44	0.57	0.42	0.90	0.79
16	0.82	1.69	2.46	1.81	1.15	0.86	11.72	0.41	0.52	0.39	0.83	0.74
17	0.77	1.71	2.40	1.76	1.14	0.85	10.26	0.43	0.48	0.37	0.76	1.53
18	0.71	1.74	2.34	1.72	1.13	0.84	8.99	0.42	0.44	0.36	0.70	1.64
19	1.05	1.89	2.29	1.68	1.12	0.83	7.87	0.39	3.14	0.34	0.64	1.47
20	1.69	2.31	2.24	1.65	1.11	2.89	6.90	0.37	3.77	0.39	0.60	1.32
21	1.72	3.08	2.20	1.61	1.10	8.83	6.04	0.35	3.37	0.39	0.63	1.20
22	1.54	4.34	2.16	1.58	1.08	9.46	5.29	0.33	2.96	0.37	0.87	1.15
23	1.92	5.98	2.59	1.55	1.07	8.34	4.64	0.31	2.61	0.35	0.89	1.07
24	1.89	6.02	6.10	1.53	1.06	8.54	4.06	0.29	2.31	0.34	0.81	0.97
25	1.70	6.44	6.81	1.50	1.05	7.88	3.55	0.28	2.04	0.33	0.74	0.89
26	1.53	6.71	6.24	1.48	1.04	6.96	3.11	0.27	1.81	5.10	0.70	0.82
27	1.39	6.64	5.66	1.46	1.03	6.16	2.72	0.26	1.61	5.95	0.65	0.76
28	1.37	6.24	5.16	1.44	1.02	6.17	2.37	0.25	1.43	6.49	0.60	0.70
29	1.28	5.78	4.72	1.42	1.01	6.13	2.06	0.24	1.54	6.10	0.73	0.66
30	1.17	5.40	4.34	1.40	0.0	5.79	1.79	0.36	1.46	5.35	0.87	0.61
31	1.07	0.0	4.00	1.38	0.0	5.69	0.0	0.38	0.0	4.70	1.62	0.0
TOT	36.96	93.83	113.97	63.26	34.02	100.21	235.05	18.39	36.14	48.49	44.01	32.72

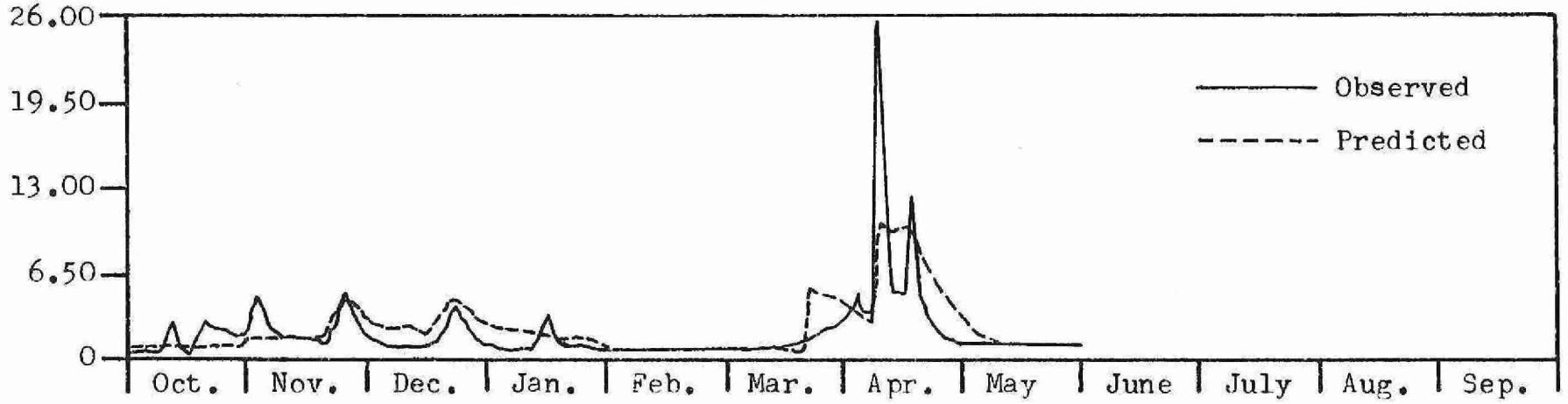
TOTAL FOR WATER YEAR = 857.05



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - DICKIE LAKE #11

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.32	0.90	3.66	3.17	0.69	0.31	4.44	2.36	0.28	0.70	1.89	0.59
2	0.30	0.96	3.48	2.97	0.67	0.30	4.28	2.18	0.26	0.65	1.74	0.61
3	0.29	0.97	3.32	2.79	0.65	0.29	3.98	2.01	0.25	0.60	1.61	0.58
4	0.41	0.98	3.16	2.63	0.63	0.29	3.66	1.85	0.23	0.56	1.48	0.54
5	0.43	0.99	3.02	2.47	0.61	0.28	3.42	1.70	0.22	0.52	1.41	0.51
6	0.58	1.01	2.88	2.33	0.59	0.27	3.20	1.60	0.31	0.48	1.31	0.47
7	0.56	1.04	2.76	2.20	0.57	0.27	5.12	1.48	0.30	0.47	1.21	0.44
8	0.53	1.06	2.64	2.07	0.55	0.26	8.78	1.37	0.28	0.44	1.12	0.42
9	0.50	1.09	2.53	1.96	0.53	0.25	11.23	1.26	0.26	0.41	1.04	0.40
10	0.47	1.12	2.42	1.85	0.52	0.25	11.20	1.16	0.25	0.38	0.96	0.37
11	0.46	1.14	2.32	1.75	0.50	0.24	10.66	1.07	0.23	0.36	0.89	0.35
12	0.44	1.18	2.23	1.66	0.49	0.24	10.55	0.99	0.22	0.33	0.83	0.33
13	0.42	1.21	2.15	1.58	0.48	0.23	9.91	0.92	0.21	0.31	0.77	0.37
14	0.39	1.24	2.06	1.50	0.46	0.23	10.17	0.85	0.26	0.29	0.71	0.35
15	0.37	1.27	1.99	1.42	0.45	0.22	9.55	0.79	0.25	0.28	0.66	0.33
16	0.35	1.30	1.92	1.35	0.44	0.22	8.79	0.73	0.24	0.26	0.62	0.32
17	0.33	1.34	1.85	1.29	0.43	0.21	8.08	0.69	0.22	0.24	0.58	0.52
18	0.31	1.37	1.78	1.23	0.41	0.21	7.42	0.64	0.21	0.23	0.54	0.51
19	0.41	1.44	1.72	1.17	0.40	0.20	6.82	0.59	1.36	0.22	0.50	0.48
20	0.61	1.63	1.66	1.12	0.39	1.72	6.26	0.55	1.44	0.22	0.47	0.45
21	0.59	1.99	1.61	1.07	0.38	5.88	5.75	0.51	1.33	0.21	0.46	0.42
22	0.56	2.63	1.56	1.03	0.37	5.87	5.28	0.47	1.23	0.20	0.50	0.41
23	0.67	3.55	2.32	0.98	0.36	5.41	4.84	0.44	1.14	0.19	0.48	0.39
24	0.65	3.61	4.88	0.94	0.35	5.84	4.44	0.41	1.05	0.18	0.44	0.37
25	0.61	3.95	5.03	0.91	0.35	5.48	4.06	0.38	0.97	0.17	0.42	0.35
26	0.57	4.15	4.71	0.87	0.34	5.04	3.72	0.36	0.90	2.24	0.39	0.33
27	0.53	4.19	4.40	0.84	0.33	4.65	3.40	0.33	0.83	2.31	0.37	0.31
28	0.54	4.07	4.11	0.80	0.32	4.80	3.10	0.31	0.77	2.55	0.35	0.29
29	0.51	3.92	3.85	0.77	0.31	4.81	2.82	0.29	0.80	2.40	0.38	0.28
30	0.48	3.79	3.60	0.75		4.63	2.57	0.32	0.75	2.22	0.39	0.26
31	0.45		3.38	0.72		4.64		0.30		2.04	0.60	
TOT	14.63	59.07	89.01	48.20	13.58	63.52	187.50	28.91	17.07	22.66	25.09	12.33

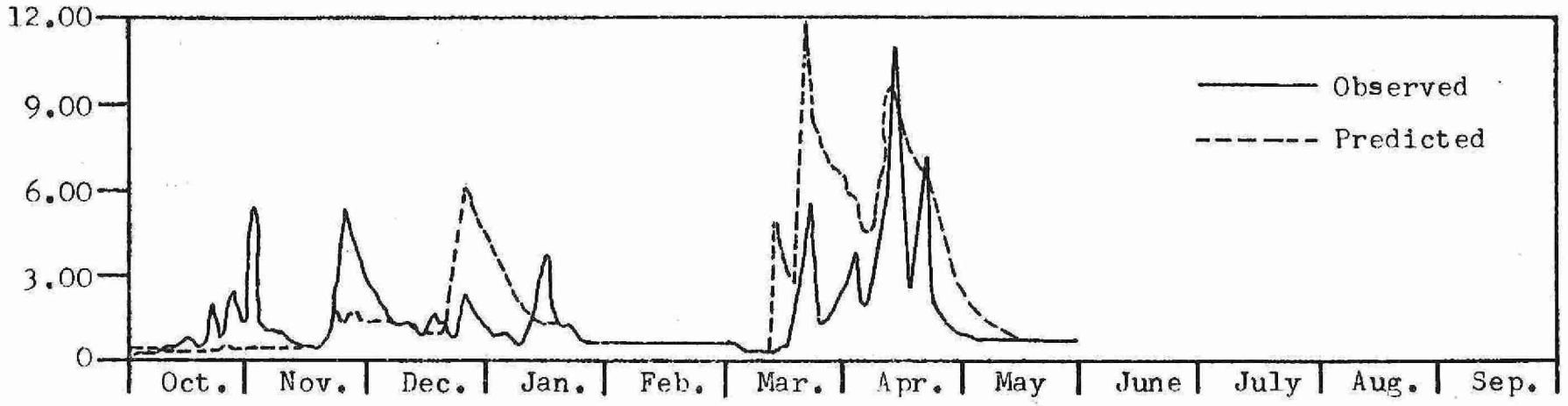
TOTAL FOR WATER YEAR = 581.56



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - CHUB LAKE #1

DAY	OCT.	NOV.	DEC.	JAN.	FEb.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.28	0.61	1.48	2.94	0.66	0.46	5.90	1.82	0.38	0.52	2.61	0.56
2	0.28	0.50	1.41	2.75	0.65	0.46	5.51	1.70	0.37	0.50	2.43	0.63
3	0.27	0.48	1.34	2.57	0.63	0.46	5.06	1.58	0.36	0.48	2.25	0.58
4	0.38	0.47	1.27	2.40	0.62	0.45	4.68	1.47	0.35	0.46	2.10	0.55
5	0.34	0.46	1.22	2.25	0.60	0.45	4.36	1.38	0.34	0.45	2.01	0.53
6	0.42	0.46	1.16	2.11	0.59	0.45	4.04	1.32	0.39	0.43	1.85	0.51
7	0.37	0.45	1.11	1.98	0.58	0.45	6.71	1.22	0.36	0.42	1.73	0.49
8	0.37	0.45	1.07	1.86	0.57	0.44	9.75	1.14	0.35	0.41	1.61	0.47
9	0.35	0.44	1.02	1.75	0.56	0.44	10.33	1.07	0.34	0.39	1.50	0.46
10	0.34	0.44	0.98	1.65	0.55	0.44	8.93	1.01	0.33	0.38	1.41	0.45
11	0.34	0.44	0.95	1.56	0.55	0.44	8.28	0.95	0.33	0.37	1.32	0.43
12	0.32	0.44	0.92	1.47	0.54	0.44	7.68	0.89	0.32	0.36	1.23	0.42
13	0.31	0.44	0.89	1.39	0.53	0.44	7.06	0.84	0.31	0.35	1.16	0.46
14	0.30	0.44	0.86	1.32	0.52	0.43	7.25	0.79	0.34	0.34	1.09	0.43
15	0.30	0.44	0.83	1.25	0.52	0.43	6.46	0.75	0.32	0.34	1.02	0.42
16	0.29	0.44	0.81	1.19	0.51	0.43	5.96	0.71	0.31	0.33	0.96	0.41
17	0.28	0.44	0.78	1.13	0.51	4.96	5.51	0.68	0.31	0.32	0.91	0.52
18	0.27	0.52	0.76	1.08	0.50	3.09	5.08	0.64	0.30	0.32	0.86	0.46
19	0.35	0.51	0.74	1.03	0.50	2.87	4.69	0.61	1.11	0.31	0.81	0.45
20	0.45	0.59	0.73	0.99	0.49	6.08	4.34	0.58	0.81	0.32	0.77	0.44
21	0.39	0.72	0.71	0.95	0.49	12.54	4.00	0.56	0.76	0.31	0.73	0.42
22	0.37	1.09	0.70	0.91	0.49	8.89	3.70	0.53	0.72	0.31	0.75	0.43
23	0.47	1.69	2.89	0.88	0.48	8.20	3.42	0.51	0.68	0.30	0.70	0.41
24	0.41	1.36	6.64	0.84	0.48	8.96	3.16	0.49	0.64	0.30	0.66	0.40
25	0.40	1.99	5.05	0.81	0.47	7.81	2.92	0.47	0.61	0.29	0.63	0.39
26	0.38	1.86	4.53	0.79	0.47	7.22	2.69	0.45	0.59	5.74	0.61	0.38
27	0.37	1.85	4.21	0.76	0.47	6.67	2.49	0.43	0.56	3.52	0.58	0.38
28	0.38	1.71	3.91	0.74	0.47	7.18	2.30	0.42	0.54	3.69	0.56	0.37
29	0.35	1.63	3.64	0.72	0.46	6.99	2.12	0.40	0.61	3.28	0.60	0.36
30	0.34	1.55	3.39	0.70	0.0	6.51	1.96	0.42	0.55	3.04	0.58	0.35
31	0.33	0.0	3.16	0.68	0.0	6.50	0.0	0.39	0.0	2.82	0.61	0.0
TOT	10.82	24.90	59.15	43.42	15.47	111.59	156.32	26.23	14.30	31.40	36.66	13.61

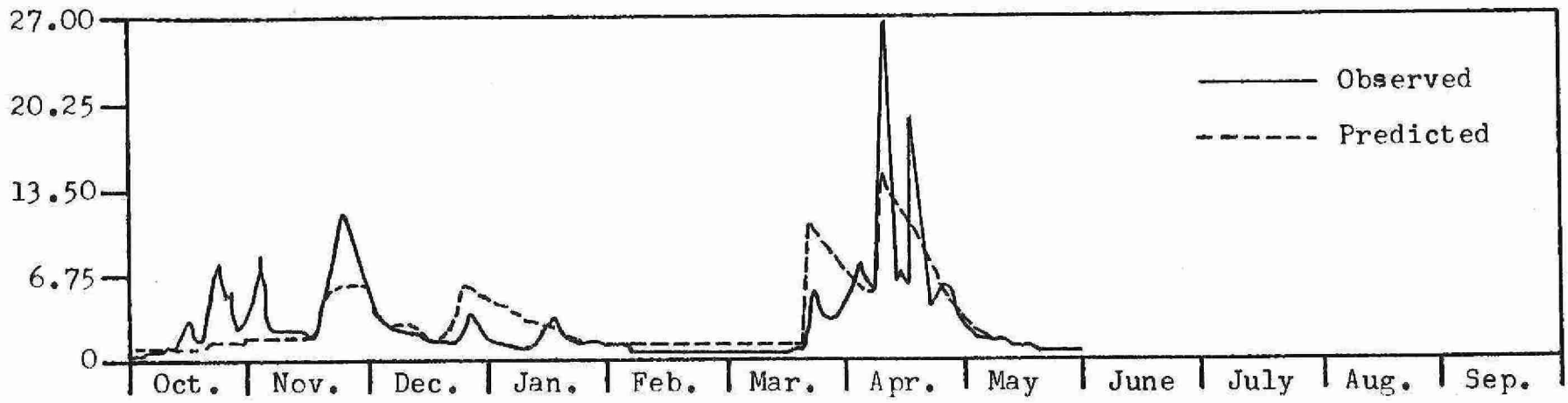
TOTAL FOR WATER YEAR = 543.87



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - CHUB LAKE #2

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.56	1.48	4.22	3.77	1.32	1.03	6.75	2.01	0.39	1.06	4.04	0.89
2	0.54	1.46	3.97	3.53	1.31	1.03	6.31	1.83	0.38	0.98	3.67	1.06
3	0.52	1.40	3.74	3.32	1.29	1.02	5.74	1.67	0.37	0.91	3.33	1.01
4	0.78	1.36	3.53	3.12	1.28	1.01	5.20	1.53	0.36	0.85	3.02	0.94
5	0.82	1.32	3.35	2.94	1.26	1.01	4.81	1.40	0.35	0.79	2.90	0.88
6	1.08	1.29	3.18	2.79	1.25	1.00	4.42	1.37	0.48	0.74	2.65	0.83
7	1.03	1.27	3.02	2.64	1.24	0.99	7.75	1.26	0.47	0.71	2.42	0.78
8	1.00	1.25	2.89	2.51	1.23	0.99	12.51	1.16	0.45	0.67	2.21	0.74
9	0.94	1.24	2.76	2.39	1.21	0.98	15.29	1.07	0.43	0.63	2.02	0.71
10	0.89	1.23	2.65	2.29	1.20	0.97	14.60	0.99	0.41	0.59	1.85	0.67
11	0.86	1.23	2.54	2.19	1.19	0.97	13.51	0.91	0.40	0.56	1.70	0.64
12	0.81	1.24	2.45	2.10	1.18	0.96	12.41	0.85	0.38	0.54	1.56	0.61
13	0.77	1.24	2.37	2.02	1.17	0.95	11.21	0.79	0.37	0.51	1.44	0.72
14	0.73	1.25	2.29	1.95	1.16	0.95	11.50	0.74	0.43	0.49	1.34	0.70
15	0.70	1.26	2.22	1.89	1.15	0.94	10.48	0.69	0.42	0.47	1.24	0.66
16	0.66	1.28	2.15	1.83	1.14	0.93	9.45	0.65	0.40	0.45	1.15	0.63
17	0.64	1.29	2.10	1.77	1.13	4.62	8.52	0.64	0.39	0.43	1.07	0.93
18	0.61	1.53	2.04	1.72	1.13	4.39	7.69	0.60	0.37	0.42	0.99	0.89
19	0.80	1.59	1.99	1.68	1.12	4.03	6.93	0.57	2.12	0.41	0.93	0.84
20	1.18	1.78	1.95	1.63	1.11	6.48	6.26	0.54	2.11	0.44	0.87	0.79
21	1.13	2.17	1.91	1.60	1.10	12.58	5.64	0.51	1.93	0.42	0.82	0.75
22	1.05	3.03	1.87	1.56	1.09	11.65	5.09	0.49	1.76	0.41	0.91	0.76
23	1.29	4.34	2.70	1.53	1.08	10.55	4.59	0.46	1.61	0.40	0.86	0.73
24	1.22	4.19	6.38	1.50	1.08	10.69	4.14	0.44	1.48	0.39	0.81	0.69
25	1.14	5.13	6.37	1.47	1.07	9.72	3.73	0.43	1.36	0.38	0.77	0.66
26	1.06	5.30	5.89	1.44	1.06	8.81	3.36	0.41	1.26	5.76	0.74	0.63
27	0.99	5.32	5.44	1.42	1.05	8.00	3.03	0.39	1.16	5.49	0.70	0.60
28	0.99	5.02	5.03	1.40	1.05	8.09	2.73	0.38	1.07	5.96	0.67	0.58
29	0.93	4.72	4.67	1.38	1.04	7.94	2.45	0.37	1.22	5.45	0.81	0.56
30	0.88	4.46	4.34	1.36	0.0	7.47	2.20	0.42	1.14	4.93	0.84	0.54
31	0.83	0.0	4.04	1.34	0.0	7.27	0.0	0.41	0.0	4.46	0.94	0.0
TOT	27.46	70.65	104.02	64.07	33.70	138.02	218.31	25.96	25.47	46.68	49.23	22.42

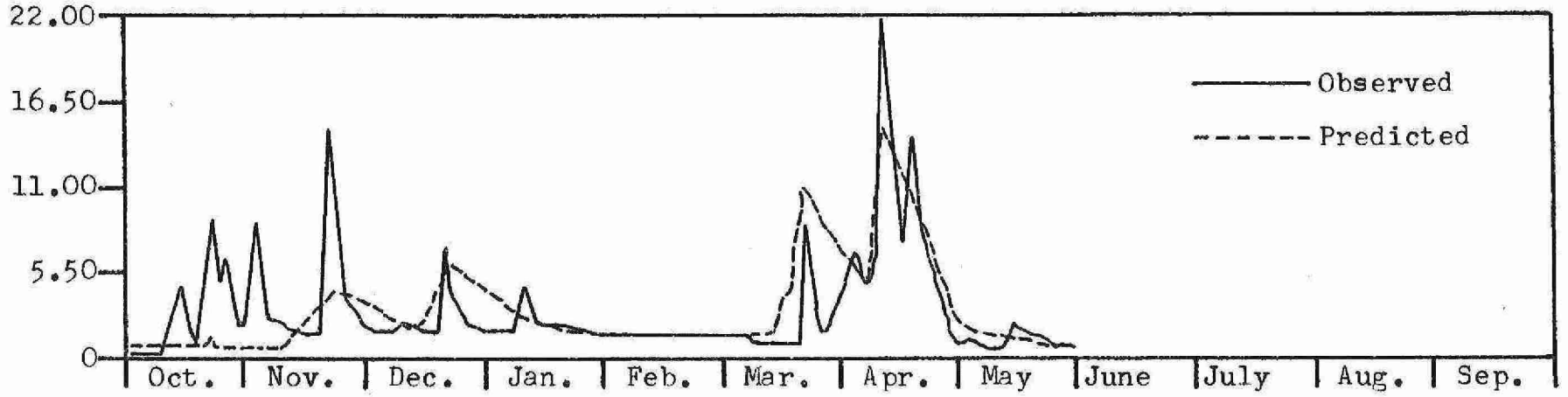
TOTAL FOR WATER YEAR = 825.99



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - RED CHALK #1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.63	1.28	3.94	3.75	1.26	0.97	6.78	2.27	0.47	1.08	3.91	0.94
2	0.61	1.41	3.71	3.52	1.25	0.97	6.34	2.08	0.46	1.01	3.58	1.05
3	0.59	1.36	3.51	3.31	1.23	0.96	5.84	1.91	0.44	0.95	3.28	1.04
4	0.76	1.32	3.32	3.12	1.21	0.96	5.33	1.76	0.43	0.89	3.01	0.99
5	0.84	1.29	3.16	2.94	1.20	0.95	4.93	1.63	0.42	0.84	2.86	0.93
6	1.00	1.26	3.00	2.78	1.19	0.94	4.56	1.56	0.50	0.79	2.67	0.89
7	1.02	1.24	2.86	2.64	1.17	0.94	6.81	1.46	0.52	0.76	2.46	0.84
8	0.99	1.22	2.73	2.51	1.16	0.93	10.90	1.35	0.50	0.73	2.26	0.80
9	0.95	1.21	2.62	2.39	1.15	0.93	13.87	1.26	0.48	0.69	2.09	0.77
10	0.90	1.20	2.51	2.28	1.14	0.92	13.95	1.17	0.47	0.66	1.93	0.74
11	0.87	1.20	2.41	2.18	1.13	0.91	13.03	1.09	0.45	0.63	1.79	0.71
12	0.84	1.20	2.33	2.09	1.12	0.91	12.05	1.02	0.44	0.60	1.66	0.68
13	0.80	1.20	2.25	2.01	1.11	0.90	11.01	0.95	0.43	0.58	1.54	0.75
14	0.77	1.20	2.17	1.93	1.10	0.90	10.95	0.90	0.46	0.56	1.44	0.75
15	0.74	1.21	2.10	1.86	1.09	0.89	10.33	0.84	0.47	0.54	1.35	0.72
16	0.71	1.22	2.04	1.80	1.08	0.89	9.39	0.79	0.45	0.52	1.26	0.70
17	0.68	1.23	1.98	1.74	1.07	3.55	8.53	0.77	0.44	0.50	1.18	0.88
18	0.66	1.38	1.93	1.69	1.06	4.20	7.76	0.73	0.43	0.49	1.11	0.91
19	0.78	1.47	1.88	1.64	1.05	3.88	7.05	0.70	1.60	0.47	1.04	0.87
20	1.07	1.60	1.84	1.60	1.05	5.59	6.41	0.66	1.97	0.49	0.98	0.82
21	1.11	1.90	1.80	1.55	1.04	10.56	5.83	0.63	1.84	0.49	0.93	0.79
22	1.05	2.56	1.76	1.52	1.03	11.25	5.30	0.60	1.70	0.47	0.98	0.79
23	1.18	3.65	2.45	1.48	1.02	10.25	4.82	0.57	1.57	0.46	0.96	0.77
24	1.18	3.83	5.32	1.45	1.02	10.16	4.39	0.55	1.45	0.45	0.91	0.74
25	1.11	4.44	6.11	1.42	1.01	9.55	3.99	0.53	1.35	0.44	0.86	0.71
26	1.05	4.78	5.75	1.39	1.00	8.71	3.63	0.51	1.26	4.15	0.83	0.68
27	0.99	4.83	5.33	1.37	0.99	7.96	3.30	0.49	1.18	5.13	0.80	0.66
28	0.98	4.64	4.95	1.34	0.99	7.87	2.99	0.47	1.10	5.35	0.76	0.64
29	0.95	4.38	4.60	1.32	0.98	7.80	2.72	0.46	1.18	5.13	0.84	0.62
30	0.90	4.15	4.29	1.30	0.0	7.43	2.47	0.49	1.16	4.69	0.89	0.60
31	0.86	0.0	4.01	1.28	0.0	7.19	0.0	0.49	0.0	4.28	0.96	0.0
TOT	27.58	64.85	98.66	63.20	31.88	130.81	215.27	30.68	25.61	44.81	51.12	23.79

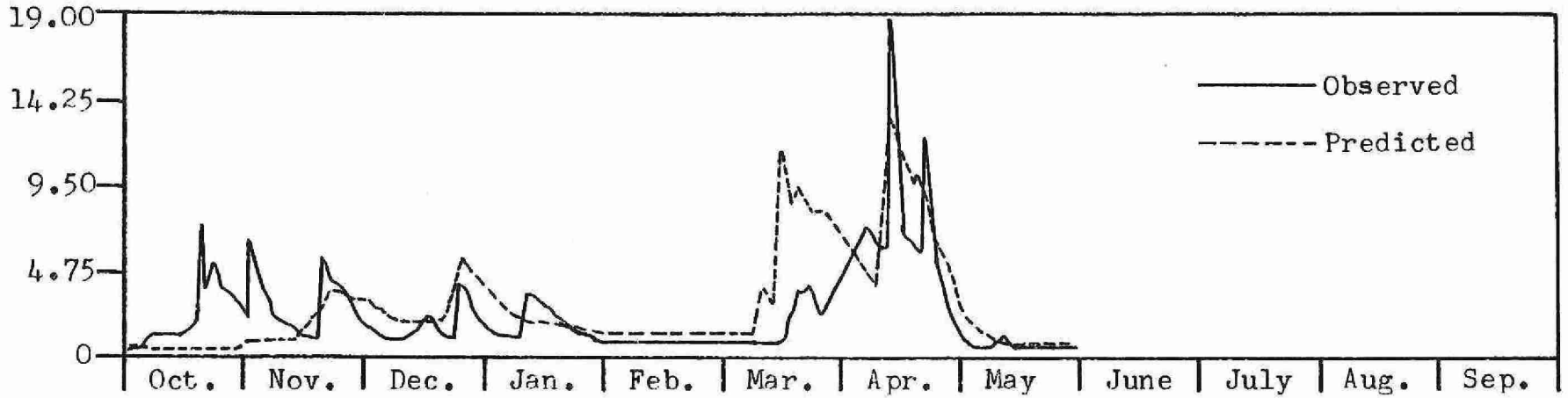
TOTAL FOR WATER YEAR = 808.26



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - RED CHALK #2

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.43	1.07	3.02	3.36	1.02	0.74	6.24	2.39	0.41	0.76	3.17	0.71
2	0.41	0.94	2.86	3.16	1.00	0.74	5.90	2.21	0.39	0.72	2.93	0.83
3	0.40	0.91	2.72	2.98	0.98	0.73	5.43	2.05	0.38	0.68	2.72	0.76
4	0.59	0.89	2.59	2.81	0.97	0.73	5.02	1.90	0.36	0.64	2.52	0.72
5	0.56	0.88	2.47	2.66	0.95	0.72	4.70	1.76	0.35	0.60	2.44	0.68
6	0.73	0.86	2.35	2.52	0.94	0.72	4.37	1.70	0.43	0.57	2.24	0.65
7	0.66	0.85	2.25	2.39	0.92	0.71	7.54	1.57	0.40	0.55	2.08	0.62
8	0.64	0.84	2.15	2.27	0.91	0.71	11.37	1.46	0.38	0.52	1.94	0.59
9	0.60	0.84	2.07	2.16	0.90	0.70	13.02	1.36	0.37	0.50	1.80	0.56
10	0.58	0.83	1.98	2.06	0.89	0.70	11.87	1.27	0.35	0.48	1.68	0.54
11	0.56	0.83	1.91	1.96	0.88	0.69	11.09	1.18	0.34	0.46	1.56	0.52
12	0.54	0.83	1.84	1.87	0.87	0.69	10.33	1.10	0.33	0.44	1.46	0.50
13	0.51	0.84	1.77	1.79	0.86	0.69	9.50	1.03	0.32	0.42	1.36	0.57
14	0.49	0.84	1.71	1.72	0.85	0.68	9.94	0.97	0.36	0.40	1.28	0.53
15	0.47	0.85	1.66	1.65	0.84	0.68	8.96	0.90	0.34	0.39	1.20	0.51
16	0.45	0.85	1.61	1.59	0.83	0.67	8.26	0.85	0.33	0.37	1.12	0.49
17	0.43	0.86	1.56	1.53	0.82	4.42	7.61	0.82	0.32	0.36	1.05	0.69
18	0.42	1.03	1.51	1.47	0.81	3.40	7.01	0.77	0.31	0.35	0.99	0.62
19	0.57	1.03	1.47	1.42	0.81	3.17	6.46	0.72	1.60	0.34	0.93	0.59
20	0.80	1.18	1.43	1.38	0.80	5.78	5.95	0.68	1.31	0.36	0.87	0.56
21	0.70	1.46	1.40	1.33	0.79	11.49	5.48	0.64	1.21	0.34	0.82	0.54
22	0.67	2.12	1.37	1.29	0.79	9.34	5.05	0.61	1.13	0.33	0.88	0.55
23	0.84	3.13	2.72	1.26	0.78	8.63	4.65	0.57	1.06	0.32	0.81	0.52
24	0.75	2.78	6.16	1.22	0.77	9.13	4.28	0.54	0.99	0.31	0.77	0.50
25	0.71	3.70	5.36	1.19	0.77	8.22	3.94	0.52	0.93	0.30	0.72	0.48
26	0.68	3.68	4.94	1.16	0.76	7.60	3.62	0.49	0.88	5.40	0.70	0.47
27	0.64	3.70	4.62	1.13	0.76	7.04	3.33	0.47	0.82	4.05	0.66	0.45
28	0.65	3.48	4.32	1.11	0.75	7.35	3.06	0.45	0.77	4.47	0.63	0.43
29	0.61	3.31	4.05	1.08	0.75	7.21	2.81	0.43	0.89	4.00	0.72	0.42
30	0.58	3.16	3.80	1.06	0.0	6.80	2.58	0.45	0.81	3.70	0.71	0.41
31	0.56	0.0	3.57	1.04	0.0	6.72	0.0	0.43	0.0	3.42	0.76	0.0
TOT	18.22	48.57	83.24	55.63	24.76	117.60	199.41	32.29	18.85	36.55	43.51	16.99

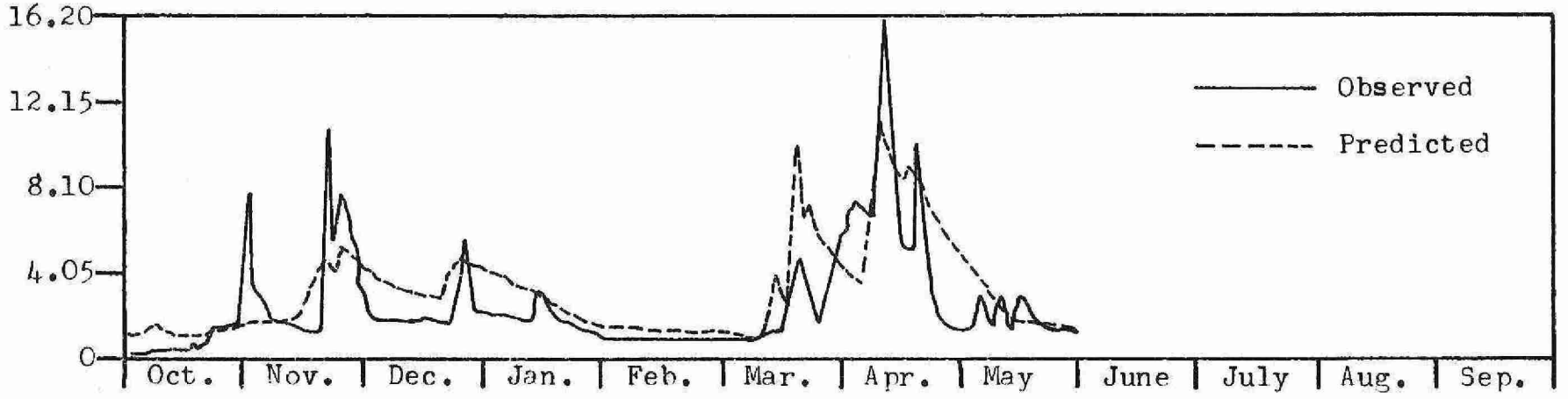
TOTAL FOR WATER YEAR = 695.63



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - RED CHALK #3

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.69	1.96	4.68	3.82	1.70	1.18	5.05	2.93	0.62	0.70	2.69	0.81
2	0.66	1.54	4.51	3.68	1.68	1.17	4.84	2.76	0.59	0.67	2.54	0.95
3	0.64	1.53	4.35	3.56	1.65	1.16	4.54	2.61	0.57	0.64	2.40	0.84
4	0.97	1.53	4.20	3.43	1.62	1.15	4.29	2.46	0.55	0.61	2.27	0.81
5	0.87	1.53	4.06	3.32	1.60	1.13	4.10	2.32	0.52	0.59	2.26	0.77
6	1.20	1.53	3.93	3.21	1.57	1.12	3.88	2.27	0.58	0.57	2.10	0.74
7	1.00	1.54	3.80	3.10	1.55	1.11	6.94	2.12	0.53	0.55	1.98	0.71
8	1.00	1.55	3.68	3.01	1.53	1.10	10.28	2.00	0.51	0.53	1.88	0.68
9	0.94	1.56	3.57	2.91	1.51	1.09	11.38	1.89	0.49	0.51	1.78	0.66
10	0.90	1.57	3.47	2.83	1.48	1.08	10.02	1.79	0.47	0.49	1.69	0.63
11	0.89	1.59	3.37	2.74	1.46	1.07	9.52	1.69	0.46	0.47	1.60	0.61
12	0.84	1.61	3.27	2.67	1.45	1.06	9.06	1.60	0.44	0.46	1.52	0.59
13	0.81	1.63	3.18	2.59	1.43	1.05	8.46	1.52	0.42	0.44	1.44	0.67
14	0.78	1.65	3.09	2.52	1.41	1.05	9.39	1.43	0.45	0.43	1.37	0.61
15	0.75	1.67	3.01	2.45	1.39	1.04	8.34	1.36	0.42	0.41	1.30	0.59
16	0.72	1.70	2.93	2.39	1.37	1.03	7.83	1.29	0.41	0.40	1.24	0.57
17	0.69	1.73	2.86	2.33	1.36	4.23	7.36	1.24	0.39	0.39	1.18	0.78
18	0.67	2.06	2.79	2.27	1.34	2.85	6.91	1.17	0.38	0.38	1.12	0.67
19	0.96	2.03	2.73	2.22	1.33	2.73	6.49	1.11	1.48	0.37	1.07	0.64
20	1.38	2.31	2.66	2.17	1.31	4.92	6.09	1.06	1.05	0.38	1.02	0.62
21	1.10	2.76	2.60	2.12	1.30	9.89	5.71	1.00	0.98	0.36	0.97	0.59
22	1.05	3.66	2.55	2.07	1.28	7.11	5.36	0.96	0.93	0.35	1.03	0.62
23	1.44	4.85	3.47	2.02	1.27	6.73	5.02	0.91	0.89	0.34	0.94	0.58
24	1.21	4.13	6.52	1.98	1.25	7.11	4.70	0.87	0.85	0.33	0.90	0.56
25	1.16	5.39	5.10	1.94	1.24	6.49	4.40	0.82	0.81	0.33	0.86	0.54
26	1.11	5.25	4.84	1.90	1.23	6.15	4.11	0.79	0.78	5.16	0.84	0.52
27	1.06	5.31	4.64	1.87	1.22	5.83	3.84	0.75	0.74	3.08	0.80	0.51
28	1.11	5.04	4.46	1.83	1.20	5.99	3.58	0.72	0.71	3.69	0.76	0.49
29	1.02	4.91	4.28	1.80	1.19	5.78	3.34	0.68	0.82	3.20	0.86	0.48
30	0.98	4.79	4.12	1.76	0.0	5.46	3.11	0.69	0.73	3.02	0.83	0.46
31	0.93	0.0	3.97	1.73	0.0	5.36	0.0	0.65	0.0	2.85	0.89	0.0
TOT	29.54	79.89	116.70	78.25	40.90	104.22	187.93	45.45	19.56	32.69	44.10	19.28

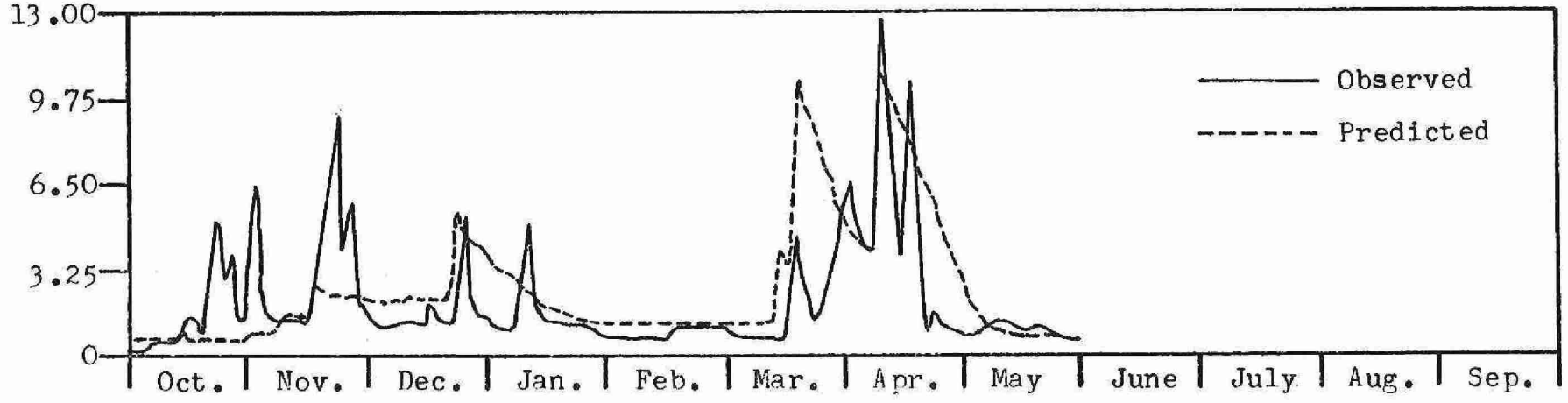
TOTAL FOR WATER YEAR = 798.51



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - RED CHALK #4

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.40	0.90	3.25	3.52	1.44	1.07	5.31	2.02	0.38	0.71	3.05	0.68
2	0.39	0.85	3.13	3.36	1.42	1.07	4.99	1.88	0.36	0.67	2.82	0.78
3	0.38	0.85	3.01	3.20	1.40	1.06	4.62	1.74	0.35	0.64	2.61	0.72
4	0.53	0.87	2.91	3.06	1.38	1.05	4.29	1.62	0.34	0.60	2.42	0.68
5	0.51	0.88	2.81	2.93	1.36	1.04	4.02	1.50	0.33	0.57	2.34	0.65
6	0.64	0.90	2.72	2.81	1.34	1.03	3.75	1.45	0.40	0.54	2.16	0.62
7	0.59	0.92	2.63	2.69	1.33	1.03	6.35	1.34	0.37	0.53	2.00	0.59
8	0.57	0.94	2.56	2.59	1.31	1.02	9.80	1.25	0.36	0.50	1.86	0.57
9	0.55	0.97	2.48	2.49	1.30	1.01	11.34	1.17	0.35	0.48	1.73	0.55
10	0.52	0.99	2.42	2.40	1.28	1.00	10.48	1.09	0.34	0.46	1.62	0.52
11	0.51	1.02	2.35	2.32	1.27	1.00	9.79	1.02	0.33	0.44	1.51	0.50
12	0.49	1.05	2.29	2.24	1.26	0.99	9.12	0.95	0.32	0.42	1.41	0.48
13	0.47	1.08	2.24	2.17	1.24	0.98	8.40	0.89	0.31	0.41	1.31	0.55
14	0.45	1.11	2.19	2.11	1.23	0.97	8.65	0.84	0.34	0.39	1.24	0.51
15	0.44	1.14	2.14	2.04	1.22	0.97	7.89	0.79	0.32	0.38	1.16	0.49
16	0.42	1.17	2.09	1.99	1.21	0.96	7.27	0.74	0.32	0.36	1.08	0.48
17	0.41	1.21	2.05	1.93	1.20	4.07	6.70	0.72	0.31	0.35	1.02	0.64
18	0.40	1.35	2.01	1.88	1.19	3.38	6.18	0.67	0.30	0.34	0.96	0.59
19	0.51	1.39	1.97	1.84	1.18	3.18	5.69	0.64	1.40	0.33	0.90	0.56
20	0.69	1.51	1.94	1.79	1.17	5.23	5.24	0.60	1.21	0.35	0.85	0.54
21	0.62	1.74	1.90	1.75	1.16	10.46	4.82	0.57	1.12	0.34	0.80	0.52
22	0.59	2.25	1.87	1.71	1.15	8.85	4.43	0.54	1.05	0.33	0.84	0.53
23	0.72	3.05	2.84	1.68	1.14	8.21	4.08	0.51	0.98	0.32	0.79	0.51
24	0.67	2.90	5.84	1.64	1.13	8.32	3.74	0.49	0.92	0.31	0.74	0.49
25	0.63	3.56	5.16	1.61	1.12	7.64	3.43	0.47	0.86	0.30	0.71	0.47
26	0.60	3.60	4.86	1.58	1.11	7.10	3.15	0.45	0.82	4.97	0.68	0.46
27	0.57	3.63	4.59	1.55	1.10	6.60	2.88	0.43	0.77	3.94	0.65	0.44
28	0.58	3.51	4.34	1.53	1.09	6.58	2.63	0.41	0.73	4.25	0.62	0.43
29	0.55	3.41	4.11	1.50	1.08	6.32	2.40	0.39	0.82	3.85	0.69	0.41
30	0.53	3.33	3.90	1.48	0.0	5.92	2.18	0.41	0.75	3.56	0.68	0.40
31	0.51	0.0	3.70	1.46	0.0	5.69	0.0	0.39	0.0	3.29	0.73	0.0
TOT	16.47	52.07	92.34	66.88	35.76	113.78	173.64	27.97	17.55	34.93	41.97	16.37

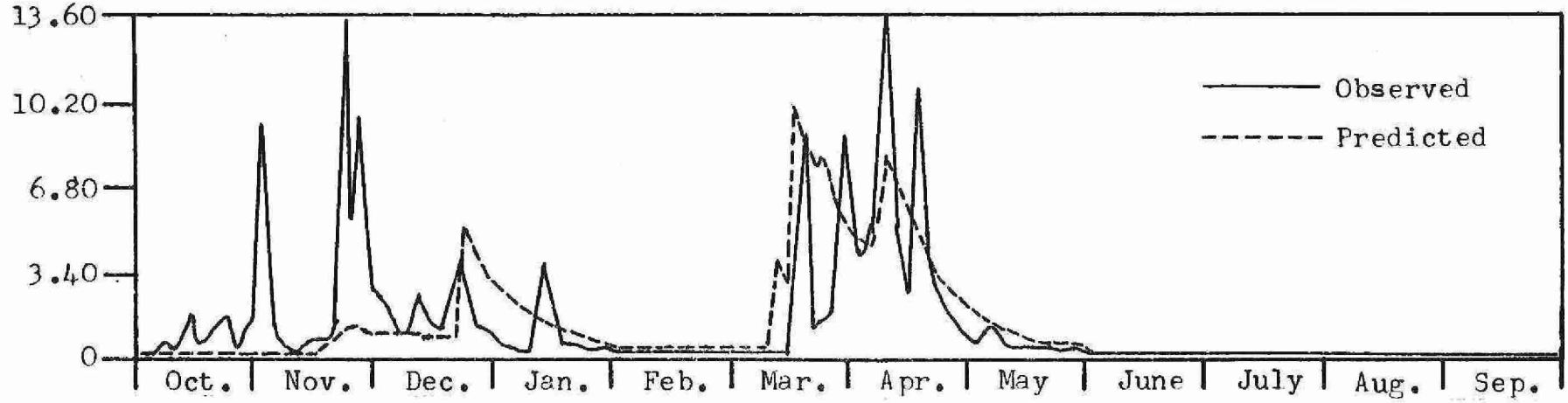
TOTAL FOR WATER YEAR = 689.74



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - BLUE CHALK 1

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.16	0.29	0.92	2.61	0.59	0.33	5.56	1.73	0.36	0.30	2.13	0.44
2	0.16	0.25	0.89	2.46	0.57	0.32	5.22	1.63	0.35	0.30	2.00	0.45
3	0.16	0.25	0.86	2.32	0.55	0.32	4.87	1.53	0.33	0.29	1.87	0.42
4	0.19	0.26	0.83	2.18	0.54	0.32	4.54	1.44	0.32	0.28	1.76	0.41
5	0.18	0.26	0.80	2.06	0.52	0.31	4.26	1.35	0.31	0.27	1.67	0.39
6	0.22	0.26	0.78	1.94	0.51	0.31	3.98	1.28	0.32	0.27	1.56	0.38
7	0.20	0.27	0.75	1.83	0.49	0.31	5.15	1.21	0.31	0.26	1.47	0.36
8	0.19	0.27	0.73	1.73	0.48	0.30	6.78	1.14	0.30	0.25	1.38	0.35
9	0.19	0.27	0.71	1.64	0.47	0.30	8.06	1.07	0.29	0.25	1.30	0.34
10	0.18	0.28	0.69	1.55	0.46	0.30	7.02	1.01	0.28	0.24	1.22	0.33
11	0.18	0.28	0.67	1.47	0.45	0.29	6.58	0.95	0.27	0.24	1.15	0.32
12	0.18	0.29	0.65	1.39	0.44	0.29	6.16	0.90	0.27	0.23	1.09	0.31
13	0.17	0.29	0.64	1.32	0.43	0.29	5.75	0.85	0.26	0.23	1.03	0.32
14	0.17	0.30	0.62	1.26	0.42	0.29	5.69	0.80	0.26	0.23	0.97	0.30
15	0.17	0.30	0.61	1.19	0.41	0.29	5.24	0.76	0.25	0.22	0.92	0.30
16	0.16	0.31	0.59	1.14	0.40	0.28	4.89	0.72	0.25	0.22	0.87	0.29
17	0.16	0.31	0.58	1.08	0.39	3.98	4.57	0.69	0.24	0.22	0.82	0.32
18	0.16	0.35	0.57	1.03	0.39	2.60	4.27	0.65	0.24	0.21	0.78	0.30
19	0.18	0.35	0.56	0.98	0.38	2.44	3.98	0.62	0.51	0.21	0.74	0.29
20	0.23	0.38	0.55	0.94	0.37	5.07	3.72	0.59	0.42	0.21	0.70	0.28
21	0.20	0.45	0.54	0.90	0.37	10.46	3.47	0.56	0.40	0.21	0.67	0.28
22	0.20	0.60	0.53	0.86	0.36	7.76	3.24	0.54	0.38	0.20	0.65	0.28
23	0.23	0.88	2.08	0.83	0.36	7.24	3.02	0.51	0.37	0.20	0.61	0.27
24	0.21	0.77	5.29	0.79	0.35	7.90	2.82	0.49	0.36	0.20	0.58	0.26
25	0.21	1.05	4.16	0.76	0.35	7.03	2.63	0.47	0.34	0.20	0.56	0.26
26	0.20	1.03	3.79	0.73	0.34	6.56	2.45	0.45	0.33	4.41	0.53	0.25
27	0.19	1.04	3.56	0.70	0.34	6.13	2.29	0.43	0.32	2.86	0.51	0.25
28	0.20	1.00	3.34	0.68	0.33	6.56	2.13	0.41	0.31	2.80	0.49	0.24
29	0.19	0.97	3.14	0.65	0.33	6.44	1.99	0.39	0.33	2.58	0.49	0.24
30	0.18	0.94	2.95	0.63	0.0	6.08	1.85	0.39	0.31	2.42	0.47	0.23
31	0.18	0.0	2.77	0.61	0.0	6.08	0.0	0.37	0.0	2.27	0.46	0.0
TOT	5.78	14.54	46.13	40.29	12.39	97.16	132.18	25.92	9.60	23.28	31.43	9.45

TOTAL FOR WATER YEAR = 448.16



Appendix D

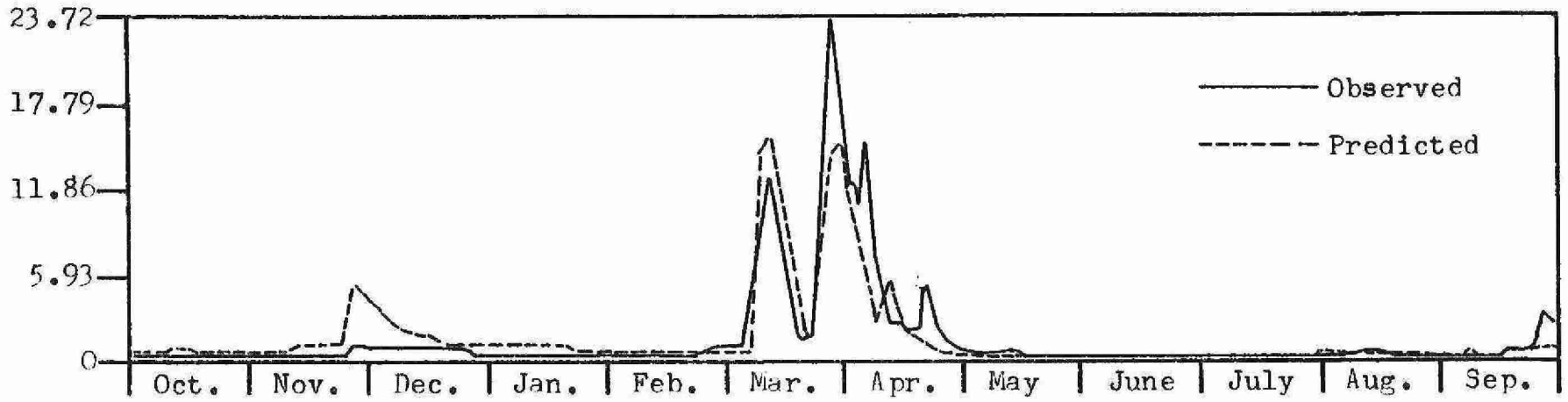
Daily Streamflow Simulations for Water Years 1977 to 1980 for Miscellaneous Watersheds:

Stream A
Stream B
Twelve Mile North
Twelve Mile South
Baker Creek
Duck
Haliburton
Moose

DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - STREAM A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.43	0.38	3.17	0.93	0.62	0.43	11.53	0.25	0.64	0.20	0.59	0.22
2	0.42	0.41	2.76	0.91	0.61	0.42	9.13	0.23	0.85	0.19	0.50	0.21
3	0.40	0.45	2.44	0.90	0.60	0.42	7.36	0.22	0.70	0.18	0.43	0.20
4	0.39	0.48	2.19	0.89	0.59	0.41	5.94	0.21	0.59	0.18	0.45	0.20
5	0.39	0.52	1.99	0.88	0.59	0.41	4.76	0.20	0.50	0.34	0.62	0.19
6	0.77	0.55	1.83	0.87	0.58	0.40	3.83	0.20	0.43	0.41	0.65	0.19
7	0.93	0.59	1.70	0.86	0.57	0.40	3.08	0.19	0.37	0.36	0.55	0.18
8	0.81	0.62	1.59	0.84	0.56	0.39	2.49	0.19	0.33	0.32	0.47	0.18
9	0.71	0.65	1.50	0.83	0.56	0.39	2.03	0.18	0.30	0.29	0.49	0.24
10	0.64	0.69	1.43	0.82	0.55	0.68	1.69	0.18	0.27	0.26	0.48	0.26
11	0.58	0.72	1.37	0.81	0.54	1.32	1.94	0.18	0.25	0.24	0.42	0.24
12	0.53	0.75	1.32	0.80	0.53	7.81	5.10	0.18	0.23	0.22	0.37	0.23
13	0.50	0.79	1.28	0.79	0.53	14.13	6.17	0.17	0.22	0.21	0.32	0.21
14	0.47	0.82	1.25	0.78	0.52	14.91	4.94	0.17	0.21	0.20	0.29	0.21
15	0.45	0.86	1.21	0.77	0.51	15.70	3.97	0.17	0.20	0.19	0.27	0.20
16	0.44	0.89	1.19	0.76	0.51	14.34	3.20	0.17	0.20	0.19	0.32	0.19
17	0.42	0.92	1.16	0.75	0.50	11.34	2.59	0.17	0.20	0.18	0.34	0.19
18	0.41	0.94	1.14	0.74	0.49	8.99	2.11	0.17	0.19	0.18	0.30	0.19
19	0.40	1.09	1.12	0.73	0.49	7.15	1.73	0.17	0.19	0.17	0.28	0.18
20	0.39	1.18	1.10	0.72	0.48	5.71	1.43	0.17	0.18	0.17	0.26	0.60
21	0.48	1.17	1.08	0.71	0.47	4.57	1.19	0.17	0.18	0.17	0.39	0.78
22	0.57	1.17	1.07	0.70	0.47	3.68	0.99	0.16	0.18	0.17	0.45	0.65
23	0.56	1.17	1.05	0.69	0.46	2.98	0.83	0.16	0.17	0.16	0.39	0.55
24	0.51	1.17	1.03	0.68	0.46	2.43	0.71	0.16	0.17	0.21	0.34	0.47
25	0.48	1.41	1.02	0.68	0.45	2.00	0.60	0.16	0.17	0.23	0.31	0.51
26	0.45	1.55	1.00	0.67	0.44	1.66	0.51	0.16	0.17	0.21	0.28	0.95
27	0.43	3.97	0.99	0.66	0.44	1.61	0.44	0.16	0.17	0.20	0.26	1.07
28	0.42	5.02	0.98	0.65	0.43	5.51	0.38	0.17	0.20	0.19	0.24	0.89
29	0.40	4.24	0.96	0.64	0.0	8.49	0.33	0.17	0.22	0.18	0.23	0.77
30	0.39	3.64	0.95	0.63	0.0	13.62	0.28	0.17	0.21	0.18	0.22	0.67
31	0.38	0.0	0.94	0.62	0.0	14.48	0.0	0.16	0.0	0.47	0.22	0.0
TOT	15.56	38.81	43.82	23.74	14.55	166.80	91.30	5.56	8.88	7.07	11.71	11.80

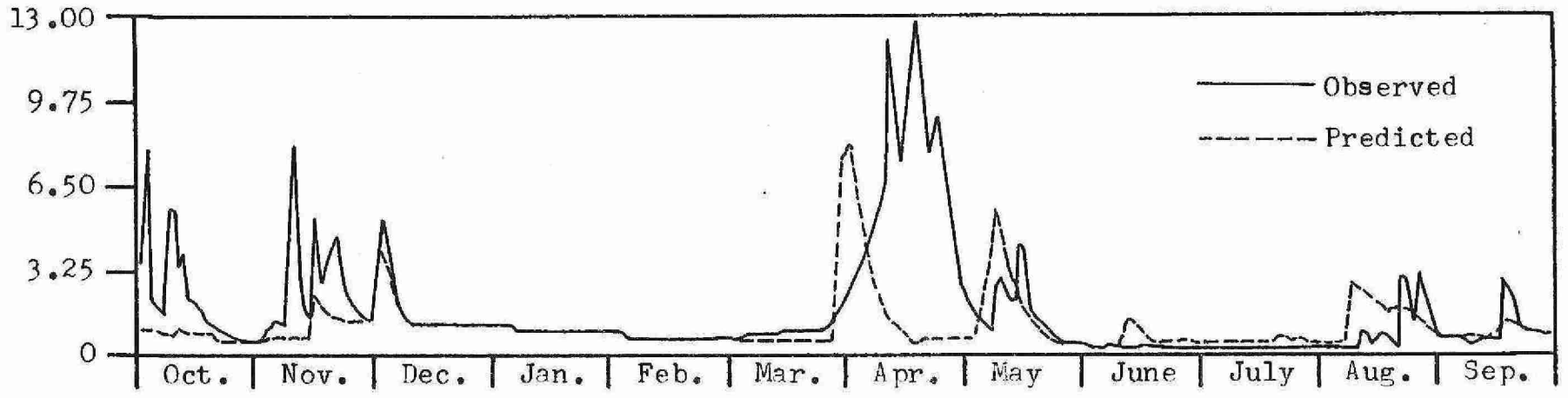
TOTAL FOR WATER YEAR = 439.61



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - STREAM A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.77	0.21	3.44	0.62	0.41	0.29	7.24	0.25	0.25	0.34	0.53	0.79
2	0.78	0.23	4.41	0.62	0.41	0.28	8.35	0.24	0.24	0.32	0.56	0.71
3	0.66	0.51	3.65	0.61	0.40	0.28	6.59	0.22	0.24	0.30	0.55	0.64
4	0.56	0.64	3.04	0.60	0.40	0.28	5.21	0.20	0.29	0.29	0.48	0.58
5	0.49	0.59	2.57	0.59	0.39	0.27	4.15	0.23	0.31	0.28	0.43	0.53
6	0.43	0.55	2.19	0.58	0.39	0.27	3.31	1.23	0.29	0.27	0.39	0.49
7	0.38	0.56	1.90	0.58	0.38	0.27	2.63	1.91	0.32	0.26	0.36	0.46
8	0.60	0.56	1.66	0.57	0.38	0.26	2.10	3.05	0.33	0.26	0.33	0.43
9	0.69	0.54	1.48	0.56	0.37	0.26	1.68	5.38	0.30	0.25	0.31	0.45
10	0.59	0.53	1.33	0.55	0.37	0.26	1.35	5.76	0.28	0.25	0.29	0.68
11	0.57	0.53	1.21	0.55	0.36	0.25	1.09	4.67	0.27	0.24	0.30	0.83
12	0.54	0.53	1.11	0.54	0.36	0.25	0.91	3.77	1.27	0.24	0.29	0.78
13	0.47	0.54	1.04	0.53	0.35	0.25	0.77	3.06	1.69	0.25	0.28	0.68
14	0.42	0.55	0.98	0.52	0.35	0.24	0.65	2.51	1.38	0.25	0.27	0.84
15	0.44	0.56	0.92	0.52	0.35	0.24	0.55	2.05	1.13	0.25	2.09	0.88
16	0.44	1.71	0.88	0.51	0.34	0.24	0.46	1.66	0.94	0.24	3.24	0.80
17	0.39	2.32	0.85	0.50	0.34	0.23	0.38	1.35	0.79	0.24	2.85	0.72
18	0.35	2.02	0.82	0.50	0.33	0.23	0.32	1.11	0.67	0.24	2.31	0.67
19	0.32	1.75	0.79	0.49	0.33	0.23	0.47	0.92	0.58	0.24	2.34	0.61
20	0.30	1.54	0.77	0.49	0.32	0.22	0.53	0.77	0.51	0.37	2.19	1.22
21	0.28	1.45	0.75	0.48	0.32	0.22	0.44	0.66	0.45	0.43	1.79	1.46
22	0.27	1.36	0.74	0.47	0.31	0.22	0.37	0.56	0.41	0.43	1.47	1.23
23	0.26	1.25	0.72	0.47	0.31	0.22	0.31	0.49	0.37	0.41	2.02	1.06
24	0.25	1.17	0.71	0.46	0.31	0.21	0.27	0.43	0.34	0.38	2.20	0.91
25	0.24	1.11	0.69	0.45	0.30	0.21	0.28	0.39	0.32	0.34	1.82	0.80
26	0.23	1.06	0.68	0.45	0.30	0.21	0.30	0.35	0.30	0.33	1.50	0.70
27	0.23	1.03	0.67	0.44	0.30	0.20	0.31	0.32	0.39	0.31	1.43	0.70
28	0.22	1.00	0.66	0.44	0.29	0.20	0.33	0.30	0.42	0.31	1.39	0.67
29	0.22	0.99	0.65	0.43	0.0	0.20	0.33	0.28	0.39	0.60	1.22	0.65
30	0.22	0.98	0.64	0.43	0.0	0.20	0.30	0.27	0.37	0.72	1.03	0.77
31	0.22	0.0	0.63	0.42	0.0	2.17	0.0	0.26	0.0	0.61	0.89	0.0
TOT	12.81	28.39	42.59	15.97	9.78	9.34	52.00	44.64	15.83	10.26	37.17	22.74

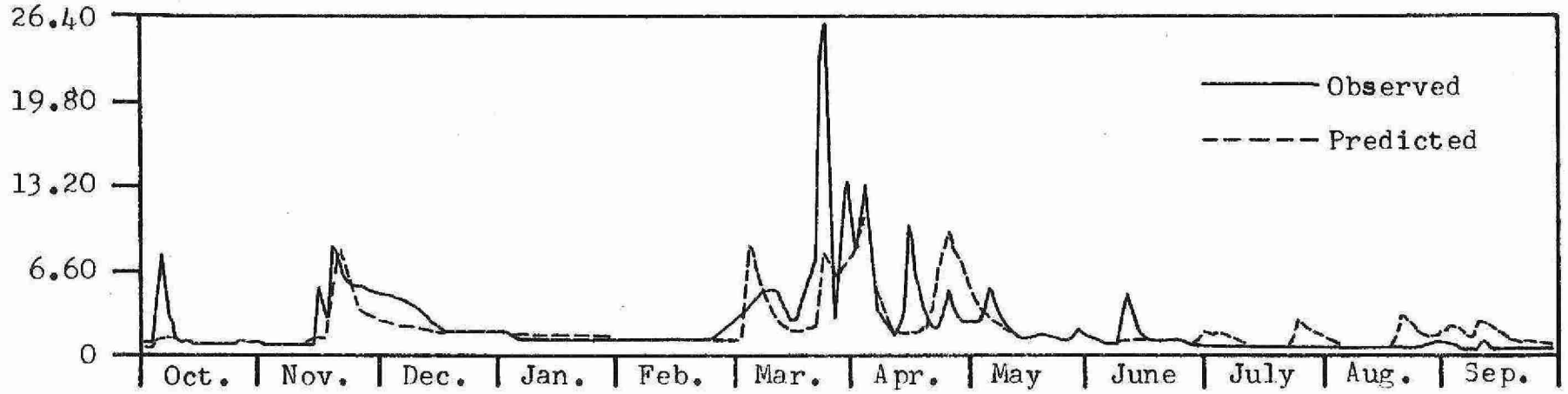
TOTAL FOR WATER YEAR = 301.52



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - STREAM A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.79	0.47	2.21	1.17	0.78	0.54	8.98	5.39	0.45	1.36	1.20	1.17
2	0.70	0.50	2.09	1.16	0.77	0.53	10.74	4.34	0.45	1.20	1.05	1.91
3	1.35	0.53	1.99	1.14	0.76	0.53	10.76	3.66	0.45	1.04	0.92	2.16
4	1.61	0.56	1.91	1.13	0.75	4.52	8.53	3.08	0.45	0.91	0.83	1.81
5	1.35	0.59	1.84	1.11	0.74	9.09	6.78	2.52	0.44	0.81	0.75	1.54
6	1.22	0.63	1.78	1.10	0.73	9.08	5.41	2.12	0.44	0.73	0.69	1.32
7	1.21	0.66	1.73	1.08	0.72	7.23	4.33	1.78	0.44	0.67	0.87	1.15
8	1.10	0.70	1.69	1.07	0.71	5.77	3.48	1.50	0.44	0.62	0.94	1.02
9	0.98	0.74	1.65	1.06	0.70	4.64	2.80	1.27	0.44	0.58	0.84	0.91
10	1.05	0.77	1.61	1.04	0.69	3.74	2.27	1.10	1.21	0.55	0.76	0.86
11	1.10	1.02	1.58	1.03	0.69	3.04	1.86	0.96	1.54	0.53	0.70	0.81
12	1.01	1.15	1.55	1.01	0.68	2.49	1.53	1.08	1.30	0.51	0.65	0.75
13	0.88	1.12	1.53	1.00	0.67	2.05	1.68	1.09	1.12	0.49	0.61	1.39
14	0.78	1.11	1.50	0.99	0.66	1.71	1.98	0.99	0.97	0.52	0.58	1.65
15	0.70	1.11	1.48	0.98	0.65	1.44	1.91	0.91	0.86	0.55	0.55	1.41
16	0.64	1.15	1.46	0.96	0.64	1.23	1.67	0.81	0.77	0.54	0.53	1.22
17	0.59	1.22	1.44	0.95	0.63	1.06	1.52	0.73	0.70	0.51	0.52	1.08
18	0.55	4.21	1.41	0.94	0.63	0.93	1.36	0.68	0.65	0.50	0.51	0.96
19	0.54	7.87	1.39	0.93	0.62	0.83	1.17	0.63	0.60	0.48	0.50	0.87
20	0.53	8.03	1.38	0.91	0.61	1.00	1.08	0.59	0.57	0.47	0.49	0.80
21	0.51	6.64	1.36	0.90	0.60	1.58	3.26	0.56	0.57	0.46	0.48	0.79
22	0.49	5.56	1.34	0.89	0.59	2.21	6.83	0.54	0.57	0.45	0.48	0.76
23	0.47	4.71	1.32	0.88	0.59	3.17	7.35	0.52	0.54	0.45	0.69	0.71
24	0.45	4.06	1.30	0.87	0.58	6.14	8.61	0.51	0.52	0.44	2.99	0.67
25	0.56	3.55	1.29	0.86	0.57	8.48	10.19	0.49	0.50	2.63	3.86	0.64
26	0.60	3.16	1.27	0.84	0.56	7.85	9.64	0.48	0.49	3.55	3.15	0.62
27	0.61	2.86	1.25	0.83	0.56	6.26	7.98	0.48	0.47	2.89	2.58	0.60
28	0.60	2.63	1.24	0.82	0.55	5.02	7.93	0.47	0.47	2.37	2.14	0.58
29	0.55	2.45	1.22	0.81	0.0	6.79	8.00	0.46	0.46	1.96	1.79	0.57
30	0.52	2.31	1.20	0.80	0.0	7.23	6.78	0.46	1.06	1.64	1.51	0.56
31	0.49	0.0	1.19	0.79	0.0	8.91	0.0	0.46	0.0	1.39	1.30	0.0
TOT	24.50	72.06	47.19	30.06	18.43	125.09	156.40	40.67	19.93	31.80	35.44	31.30

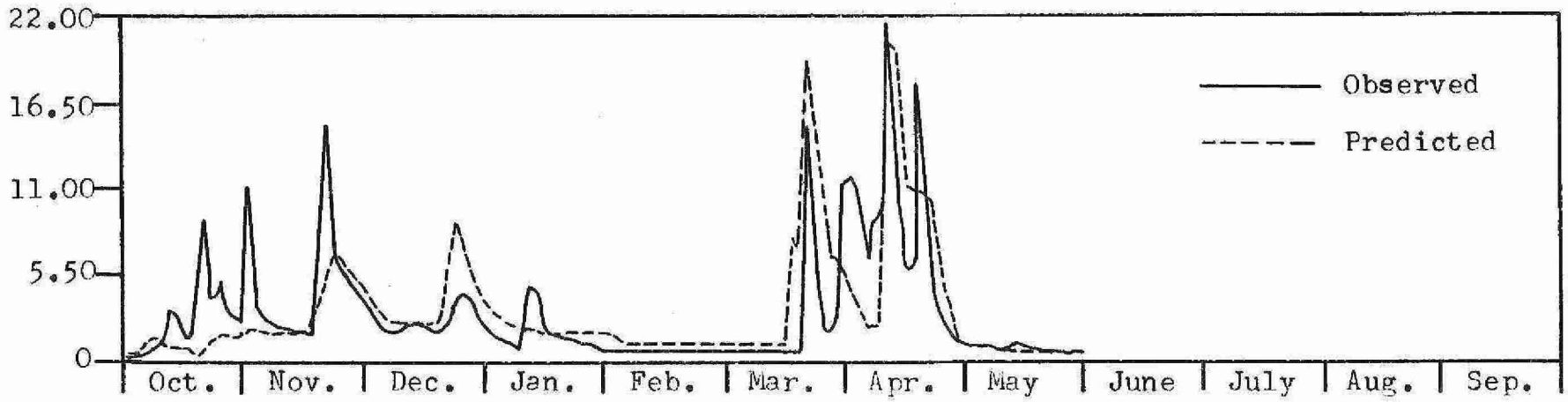
TOTAL FOR WATER YEAR = 632.88



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - STREAM A

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.55	1.71	4.56	3.23	1.19	0.81	4.65	0.51	0.39	0.91	4.01	1.01
2	0.55	2.13	4.10	2.89	1.17	0.80	4.01	0.47	0.38	0.79	3.25	1.15
3	0.54	1.87	3.73	2.62	1.16	0.79	3.38	0.44	0.36	0.70	2.66	1.17
4	0.86	1.69	3.44	2.41	1.14	0.78	2.77	0.41	0.35	0.63	2.19	1.03
5	1.08	1.56	3.21	2.24	1.13	0.77	2.37	0.39	0.34	0.57	1.99	0.91
6	1.40	1.47	3.01	2.10	1.11	0.76	2.08	0.48	0.50	0.52	1.78	0.82
7	1.46	1.41	2.86	1.98	1.10	0.75	6.58	0.51	0.56	0.50	1.50	0.75
8	1.32	1.38	2.73	1.89	1.08	0.74	15.24	0.47	0.51	0.48	1.29	0.69
9	1.20	1.36	2.62	1.81	1.07	0.73	21.28	0.44	0.46	0.46	1.12	0.66
10	1.05	1.36	2.53	1.74	1.06	0.72	20.67	0.41	0.43	0.43	0.98	0.62
11	0.98	1.37	2.45	1.69	1.04	0.71	17.27	0.39	0.40	0.42	0.88	0.59
12	0.91	1.39	2.38	1.64	1.03	0.70	14.23	0.38	0.38	0.40	0.79	0.57
13	0.84	1.41	2.33	1.60	1.01	0.69	11.50	0.37	0.36	0.39	0.73	0.70
14	0.78	1.45	2.27	1.56	1.00	0.69	10.99	0.36	0.43	0.38	0.69	0.76
15	0.73	1.48	2.23	1.53	0.99	0.68	9.99	0.35	0.46	0.38	0.65	0.70
16	0.69	1.52	2.19	1.50	0.98	0.67	7.99	0.34	0.43	0.37	0.62	0.65
17	0.66	1.55	2.15	1.47	0.96	5.47	6.41	0.38	0.40	0.37	0.59	1.04
18	0.63	1.88	2.11	1.45	0.95	7.38	5.17	0.39	0.38	0.36	0.57	1.20
19	0.91	2.11	2.08	1.43	0.94	5.92	4.18	0.37	2.54	0.36	0.55	1.05
20	1.56	2.33	2.05	1.40	0.93	8.33	3.40	0.36	3.56	0.40	0.53	0.93
21	1.70	2.91	2.02	1.38	0.91	17.58	2.78	0.35	2.94	0.42	0.52	0.83
22	1.45	4.17	1.99	1.36	0.90	19.26	2.29	0.34	2.38	0.41	0.67	0.82
23	1.71	6.27	2.50	1.34	0.89	15.24	1.89	0.34	1.94	0.39	0.73	0.79
24	1.75	6.59	7.63	1.32	0.88	13.40	1.57	0.33	1.60	0.38	0.68	0.73
25	1.49	7.19	9.67	1.31	0.87	11.47	1.31	0.33	1.33	0.37	0.64	0.68
26	1.29	7.67	8.16	1.29	0.86	9.13	1.10	0.32	1.14	6.92	0.62	0.64
27	1.13	7.30	6.79	1.27	0.84	7.29	0.93	0.32	0.98	9.64	0.60	0.60
28	1.08	6.56	5.71	1.25	0.83	6.76	0.79	0.32	0.84	8.83	0.58	0.58
29	1.02	5.71	4.85	1.24	0.82	6.57	0.67	0.31	1.02	7.78	0.74	0.56
30	0.92	5.06	4.18	1.22	0.0	5.81	0.56	0.39	1.06	6.21	0.88	0.54
31	0.84	0.0	3.65	1.20	0.0	5.25	0.0	0.42	0.0	4.97	1.02	0.0
TOT	33.09	91.87	112.16	52.37	28.84	156.67	188.06	12.02	28.87	56.16	35.04	23.77

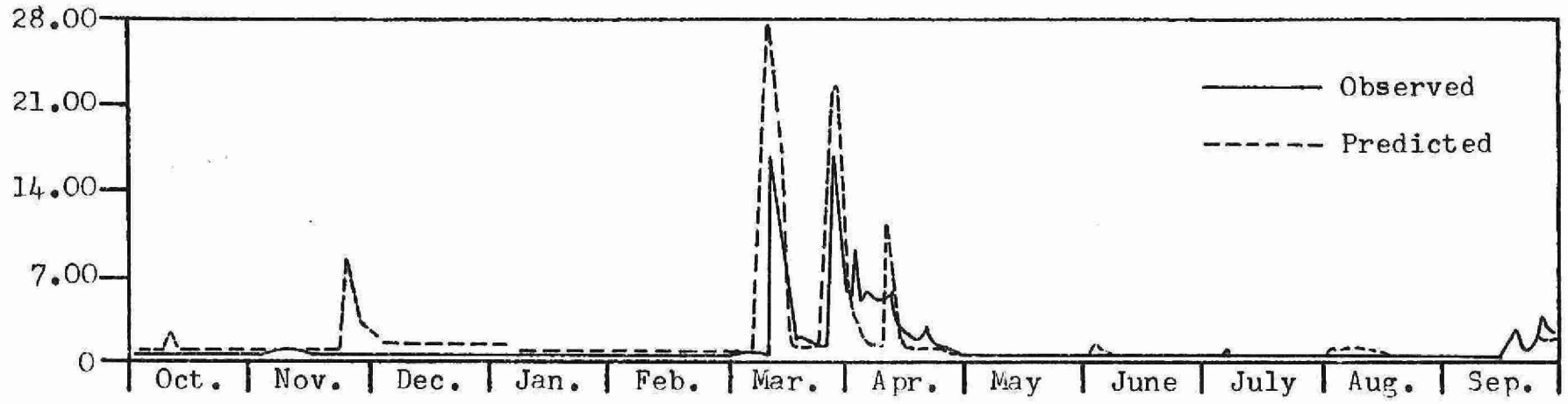
TOTAL FOR WATER YEAR = 818.92



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - STREAM B

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.37	0.36	2.12	0.93	0.62	0.43	11.06	0.17	1.08	0.19	1.05	0.22
2	0.37	0.39	1.70	0.91	0.61	0.42	5.34	0.17	1.62	0.18	0.57	0.20
3	0.37	0.43	1.51	0.90	0.60	0.42	2.92	0.17	0.84	0.17	0.36	0.19
4	0.37	0.47	1.40	0.89	0.59	0.41	1.84	0.17	0.48	0.17	0.40	0.18
5	0.36	0.51	1.35	0.88	0.59	0.41	1.12	0.18	0.31	0.48	0.80	0.18
6	1.10	0.55	1.31	0.87	0.58	0.40	0.79	0.18	0.24	0.67	0.86	0.18
7	1.53	0.58	1.29	0.86	0.57	0.40	0.59	0.18	0.20	0.41	0.49	0.18
8	0.90	0.62	1.27	0.84	0.56	0.39	0.49	0.17	0.19	0.28	0.32	0.17
9	0.62	0.65	1.25	0.83	0.56	0.39	0.44	0.17	0.18	0.22	0.42	0.28
10	0.48	0.69	1.23	0.82	0.55	0.95	0.45	0.17	0.18	0.19	0.48	0.34
11	0.42	0.72	1.22	0.81	0.54	2.26	1.48	0.17	0.17	0.18	0.32	0.25
12	0.40	0.75	1.20	0.80	0.53	14.55	8.05	0.17	0.17	0.17	0.24	0.21
13	0.38	0.78	1.19	0.79	0.53	28.09	10.73	0.17	0.17	0.17	0.21	0.19
14	0.37	0.82	1.17	0.78	0.52	24.06	5.22	0.17	0.17	0.17	0.19	0.18
15	0.38	0.86	1.16	0.77	0.51	19.95	2.67	0.17	0.17	0.17	0.18	0.18
16	0.38	0.90	1.14	0.76	0.51	16.03	1.48	0.17	0.18	0.16	0.32	0.18
17	0.37	0.92	1.13	0.75	0.50	7.61	0.93	0.17	0.19	0.16	0.40	0.18
18	0.37	0.94	1.11	0.74	0.49	3.76	0.66	0.17	0.18	0.16	0.28	0.17
19	0.37	1.20	1.10	0.73	0.49	1.99	0.53	0.17	0.17	0.16	0.23	0.17
20	0.36	1.38	1.08	0.72	0.48	1.17	0.45	0.17	0.17	0.16	0.20	0.97
21	0.55	1.20	1.07	0.71	0.47	0.80	0.41	0.16	0.17	0.16	0.48	1.44
22	0.76	1.13	1.05	0.70	0.47	0.62	0.38	0.16	0.17	0.16	0.65	0.76
23	0.65	1.12	1.04	0.69	0.46	0.54	0.35	0.16	0.17	0.16	0.40	0.45
24	0.50	1.12	1.03	0.68	0.46	0.50	0.32	0.16	0.17	0.25	0.28	0.31
25	0.42	1.58	1.01	0.68	0.45	0.47	0.30	0.16	0.17	0.30	0.23	0.43
26	0.39	1.89	1.00	0.67	0.44	0.46	0.28	0.16	0.17	0.22	0.20	1.36
27	0.37	6.29	0.99	0.66	0.44	0.86	0.26	0.16	0.17	0.19	0.19	1.68
28	0.37	8.93	0.98	0.65	0.43	8.79	0.24	0.17	0.24	0.17	0.18	0.90
29	0.36	4.83	0.96	0.64	0.0	15.87	0.22	0.17	0.28	0.17	0.18	0.59
30	0.36	2.96	0.95	0.63	0.0	22.18	0.20	0.17	0.22	0.16	0.18	0.43
31	0.36	0.0	0.94	0.62	0.0	23.07	0.0	0.16	0.0	0.72	0.20	0.0
TOT	15.38	45.59	36.95	23.73	14.55	198.23	60.20	5.24	8.98	7.28	11.51	13.16

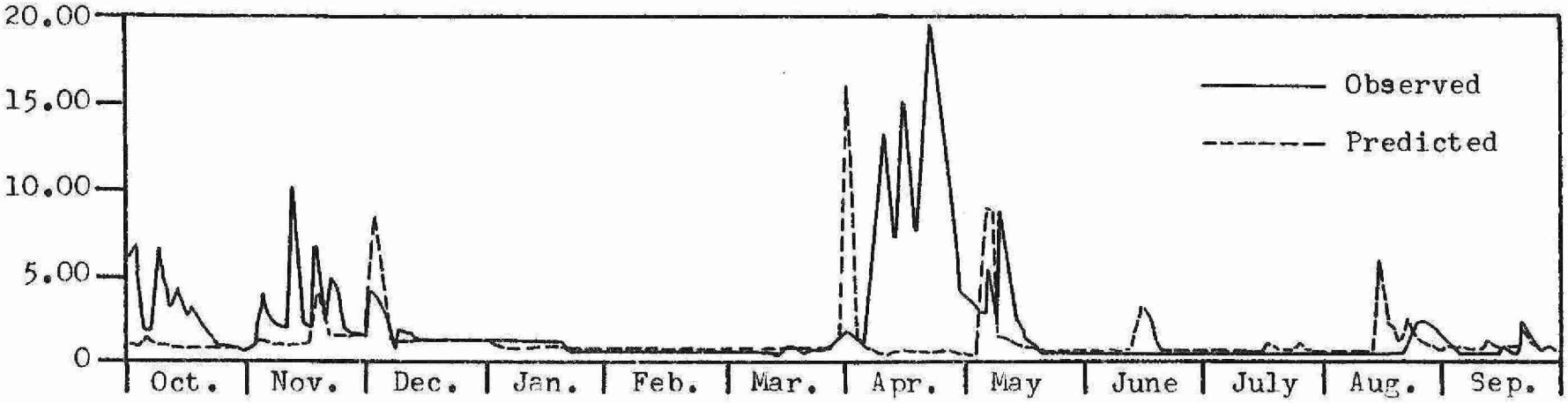
TOTAL FOR WATER YEAR = 440.81



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - STREAM B

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.70	0.21	5.64	0.62	0.41	0.29	14.32	0.18	0.22	0.29	0.44	0.44
2	0.88	0.23	8.32	0.61	0.41	0.28	15.76	0.17	0.22	0.26	0.50	0.44
3	0.52	0.74	4.30	0.61	0.40	0.28	7.34	0.18	0.22	0.25	0.56	0.42
4	0.35	1.05	2.45	0.60	0.40	0.28	3.48	0.14	0.32	0.25	0.39	0.40
5	0.28	0.66	1.60	0.59	0.39	0.27	1.76	0.23	0.39	0.24	0.31	0.37
6	0.24	0.49	1.20	0.58	0.39	0.27	0.98	2.18	0.30	0.24	0.27	0.36
7	0.22	0.49	1.01	0.58	0.38	0.27	0.55	3.74	0.34	0.24	0.25	0.35
8	0.70	0.51	0.92	0.57	0.38	0.26	0.36	4.96	0.38	0.24	0.25	0.35
9	1.00	0.46	0.87	0.56	0.37	0.26	0.26	9.25	0.29	0.24	0.24	0.41
10	0.59	0.45	0.84	0.55	0.37	0.26	0.21	9.16	0.25	0.24	0.24	0.89
11	0.50	0.46	0.83	0.55	0.36	0.25	0.20	4.67	0.23	0.24	0.27	1.24
12	0.49	0.47	0.81	0.54	0.36	0.25	0.23	2.38	2.16	0.23	0.28	0.92
13	0.36	0.49	0.80	0.53	0.35	0.25	0.25	1.37	3.28	0.25	0.26	0.61
14	0.28	0.51	0.79	0.52	0.35	0.24	0.24	0.90	1.64	0.26	0.25	0.90
15	0.38	0.52	0.78	0.52	0.35	0.24	0.22	0.64	0.88	0.25	3.74	1.09
16	0.45	2.74	0.77	0.51	0.34	0.24	0.18	0.42	0.54	0.24	6.50	0.76
17	0.32	4.18	0.76	0.50	0.34	0.23	0.15	0.32	0.38	0.23	3.96	0.61
18	0.27	2.39	0.75	0.50	0.33	0.23	0.14	0.27	0.31	0.23	2.00	0.52
19	0.24	1.49	0.74	0.49	0.33	0.23	0.51	0.25	0.27	0.23	1.98	0.48
20	0.23	1.08	0.73	0.49	0.32	0.22	0.74	0.25	0.26	0.49	2.05	1.68
21	0.22	1.03	0.72	0.48	0.32	0.22	0.41	0.25	0.25	0.65	1.11	2.39
22	0.22	1.04	0.71	0.47	0.31	0.22	0.26	0.24	0.25	0.51	0.68	1.31
23	0.22	0.91	0.70	0.47	0.31	0.22	0.18	0.23	0.25	0.45	2.01	0.83
24	0.21	0.86	0.69	0.46	0.31	0.21	0.16	0.23	0.24	0.33	2.89	0.60
25	0.21	0.85	0.68	0.45	0.30	0.21	0.23	0.23	0.24	0.28	1.59	0.48
26	0.21	0.85	0.67	0.45	0.30	0.21	0.31	0.22	0.24	0.27	0.91	0.42
27	0.21	0.86	0.66	0.44	0.30	0.20	0.35	0.22	0.43	0.27	0.94	0.53
28	0.21	0.87	0.66	0.44	0.29	0.20	0.38	0.22	0.53	0.28	1.16	0.59
29	0.21	0.88	0.65	0.43		0.20	0.37	0.22	0.41	0.86	0.91	0.56
30	0.21	0.89	0.64	0.43		0.20	0.30	0.22	0.35	1.17	0.61	0.85
31	0.21		0.63	0.42		3.97		0.22		0.67	0.47	
TOT	11.35	28.68	42.29	15.96	9.78	11.15	50.82	44.15	16.06	10.88	38.02	21.78

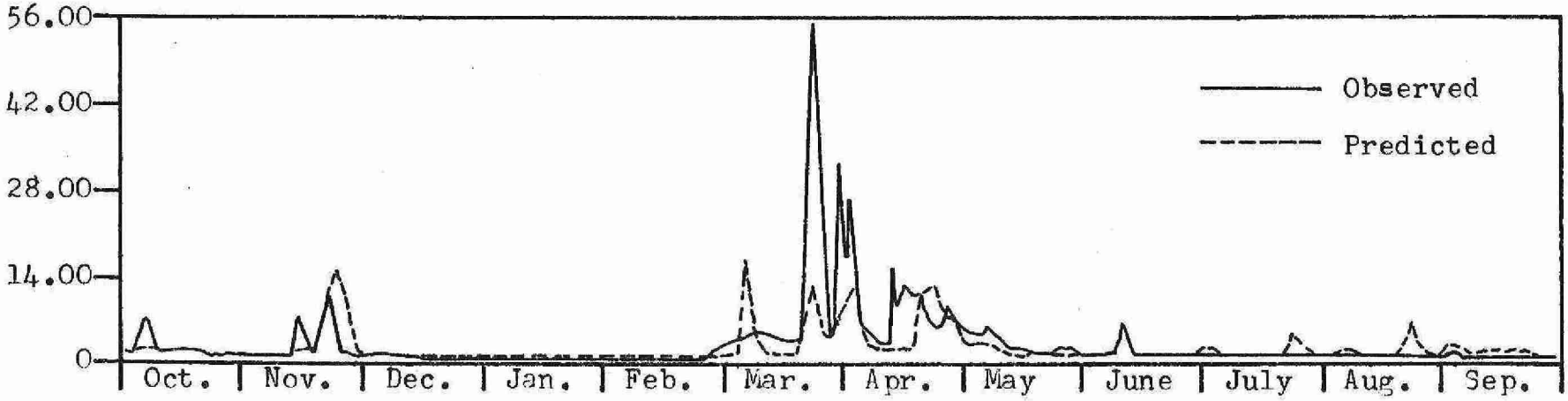
TOTAL FOR WATER YEAR = 300.92



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - STREAM B

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.92	0.41	1.76	1.17	0.78	0.54	11.70	2.71	0.45	2.37	0.55	0.63
2	0.63	0.44	1.74	1.16	0.77	0.53	12.54	1.53	0.44	1.44	0.53	2.30
3	1.87	0.48	1.71	1.14	0.76	0.53	13.70	1.27	0.44	0.90	0.50	3.18
4	2.62	0.53	1.69	1.13	0.75	8.19	6.55	1.19	0.44	0.66	0.49	1.75
5	1.43	0.57	1.67	1.11	0.74	18.24	3.27	0.81	0.44	0.55	0.48	1.10
6	1.03	0.61	1.65	1.10	0.73	14.98	1.76	0.71	0.44	0.49	0.48	0.80
7	1.08	0.65	1.63	1.08	0.72	7.15	1.06	0.66	0.44	0.47	0.92	0.66
8	0.95	0.69	1.60	1.07	0.71	3.56	0.72	0.56	0.44	0.46	1.18	0.59
9	0.70	0.72	1.58	1.06	0.70	1.92	0.56	0.51	0.44	0.45	0.80	0.56
10	0.94	0.76	1.56	1.04	0.69	1.16	0.48	0.48	1.92	0.45	0.62	0.60
11	1.18	1.20	1.54	1.03	0.69	0.81	0.43	0.47	2.77	0.45	0.54	0.63
12	0.94	1.48	1.52	1.01	0.68	0.64	0.41	0.90	1.52	0.44	0.51	0.58
13	0.68	1.18	1.50	1.00	0.67	0.57	1.17	1.16	0.94	0.44	0.49	1.88
14	0.53	1.06	1.48	0.99	0.66	0.53	2.23	0.86	0.68	0.51	0.48	2.64
15	0.46	1.03	1.46	0.98	0.65	0.50	2.04	0.73	0.56	0.60	0.47	1.51
16	0.43	1.10	1.44	0.96	0.64	0.49	1.39	0.59	0.50	0.56	0.47	0.99
17	0.42	1.23	1.43	0.95	0.63	0.48	1.17	0.52	0.47	0.49	0.47	0.75
18	0.41	6.95	1.41	0.94	0.63	0.47	1.02	0.49	0.46	0.46	0.47	0.64
19	0.46	14.73	1.39	0.93	0.62	0.47	0.75	0.48	0.45	0.45	0.47	0.59
20	0.49	12.55	1.37	0.91	0.61	0.95	0.73	0.47	0.45	0.44	0.46	0.57
21	0.46	6.55	1.35	0.90	0.60	2.26	5.10	0.46	0.51	0.44	0.46	0.63
22	0.45	3.83	1.34	0.89	0.59	3.45	12.67	0.46	0.55	0.43	0.46	0.67
23	0.42	2.60	1.32	0.88	0.59	4.90	12.17	0.46	0.49	0.43	0.89	0.60
24	0.41	2.05	1.30	0.87	0.58	10.24	11.27	0.46	0.46	0.43	5.35	0.57
25	0.62	1.82	1.28	0.86	0.57	14.55	14.28	0.46	0.45	4.63	7.46	0.55
26	0.75	1.73	1.27	0.84	0.56	10.70	11.30	0.45	0.45	7.06	3.74	0.54
27	0.66	1.70	1.25	0.83	0.56	5.19	6.56	0.45	0.44	3.50	2.00	0.54
28	0.64	1.71	1.23	0.82	0.55	2.66	6.33	0.45	0.44	1.86	1.20	0.54
29	0.51	1.72	1.22	0.81	0.0	6.77	7.90	0.45	0.44	1.12	0.83	0.53
30	0.45	1.74	1.20	0.80	0.0	9.41	5.34	0.45	1.60	0.77	0.66	0.53
31	0.42	0.0	1.19	0.79	0.0	10.68	0.0	0.45	0.0	0.62	0.59	0.0
TOT	23.94	73.83	45.10	30.06	18.43	143.50	156.60	22.09	20.52	34.36	35.02	28.66

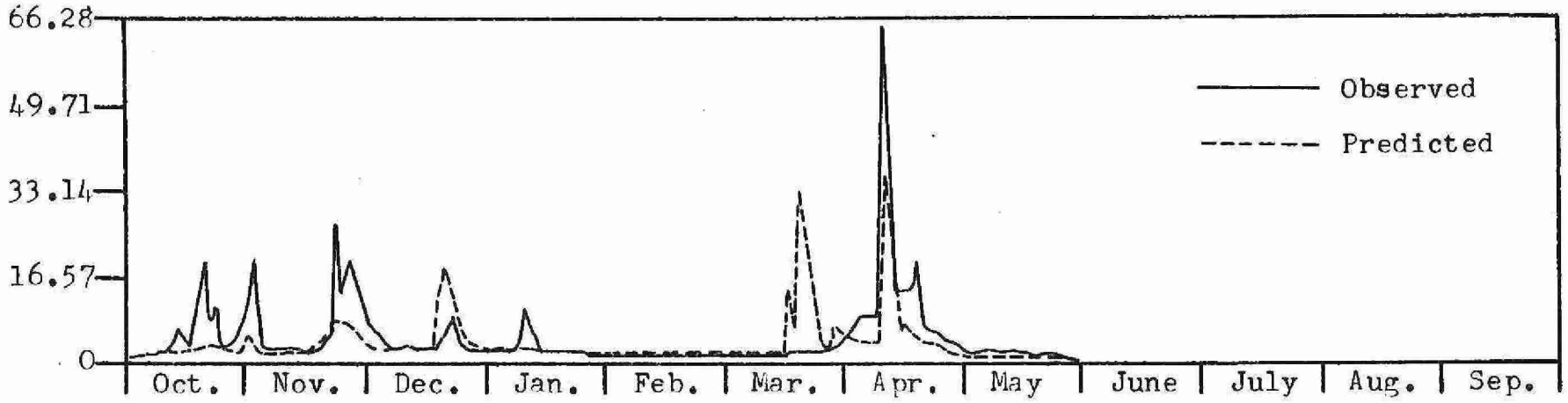
TOTAL FOR WATER YEAR = 632.12



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - STREAM B

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.53	2.37	2.90	1.85	1.19	0.81	3.10	0.33	0.41	0.76	1.24	1.22
2	0.53	3.46	2.70	1.79	1.17	0.80	2.34	0.33	0.36	0.55	0.84	1.32
3	0.53	2.00	2.59	1.75	1.16	0.79	1.77	0.33	0.33	0.45	0.66	1.42
4	1.14	1.38	2.53	1.72	1.14	0.78	1.15	0.33	0.32	0.40	0.58	0.92
5	1.66	1.14	2.48	1.69	1.13	0.77	1.00	0.33	0.31	0.38	0.86	0.69
6	1.97	1.05	2.44	1.67	1.11	0.76	1.06	0.52	0.63	0.37	1.03	0.59
7	2.02	1.03	2.41	1.65	1.10	0.75	10.11	0.64	0.82	0.40	0.75	0.54
8	1.34	1.06	2.37	1.63	1.08	0.74	28.50	0.47	0.54	0.41	0.62	0.51
9	1.04	1.10	2.34	1.60	1.07	0.73	37.50	0.39	0.41	0.38	0.55	0.51
10	0.77	1.15	2.31	1.58	1.06	0.72	29.43	0.35	0.36	0.37	0.53	0.51
11	0.73	1.21	2.28	1.56	1.04	0.71	16.33	0.34	0.33	0.36	0.51	0.50
12	0.72	1.26	2.25	1.54	1.03	0.70	9.29	0.33	0.32	0.36	0.50	0.49
13	0.63	1.31	2.22	1.52	1.01	0.69	5.30	0.34	0.31	0.36	0.50	0.78
14	0.60	1.37	2.19	1.50	1.00	0.69	6.37	0.34	0.47	0.36	0.52	0.95
15	0.58	1.42	2.16	1.48	0.99	0.68	7.33	0.33	0.56	0.36	0.53	0.70
16	0.56	1.47	2.14	1.46	0.98	0.67	3.83	0.32	0.42	0.35	0.51	0.59
17	0.55	1.52	2.11	1.44	0.96	9.88	2.20	0.40	0.36	0.35	0.50	1.35
18	0.54	2.11	2.08	1.43	0.95	15.10	1.43	0.44	0.33	0.35	0.49	1.80
19	1.11	2.59	2.05	1.41	0.94	7.27	1.06	0.37	4.50	0.35	0.49	1.10
20	2.49	2.70	2.03	1.39	0.93	10.49	0.86	0.34	7.12	0.44	0.49	0.77
21	2.61	3.69	2.00	1.37	0.91	29.43	0.75	0.33	3.68	0.49	0.49	0.62
22	1.51	5.92	1.97	1.35	0.90	32.36	0.67	0.32	1.88	0.41	0.79	0.68
23	1.85	9.64	2.99	1.34	0.89	15.18	0.62	0.32	1.06	0.38	0.97	0.71
24	2.12	9.43	13.01	1.32	0.88	9.84	0.57	0.31	0.68	0.36	0.71	0.60
25	1.28	8.43	17.97	1.30	0.87	7.69	0.53	0.31	0.51	0.35	0.59	0.54
26	0.89	9.38	9.86	1.28	0.86	3.88	0.49	0.31	0.46	12.92	0.57	0.52
27	0.72	7.45	5.53	1.27	0.84	2.13	0.45	0.31	0.44	20.15	0.56	0.50
28	0.78	5.61	3.54	1.25	0.83	3.07	0.41	0.31	0.40	11.73	0.52	0.50
29	0.82	3.95	2.61	1.23	0.82	4.79	0.37	0.31	0.92	8.16	0.85	0.49
30	0.68	3.22	2.18	1.22	0.0	4.07	0.33	0.45	1.23	4.01	1.21	0.49
31	0.62	0.0	1.96	1.20	0.0	3.43	0.0	0.54	0.0	2.11	1.31	0.0
TOT	33.93	99.42	110.21	45.82	28.84	170.42	175.16	11.38	30.45	69.20	21.25	22.93

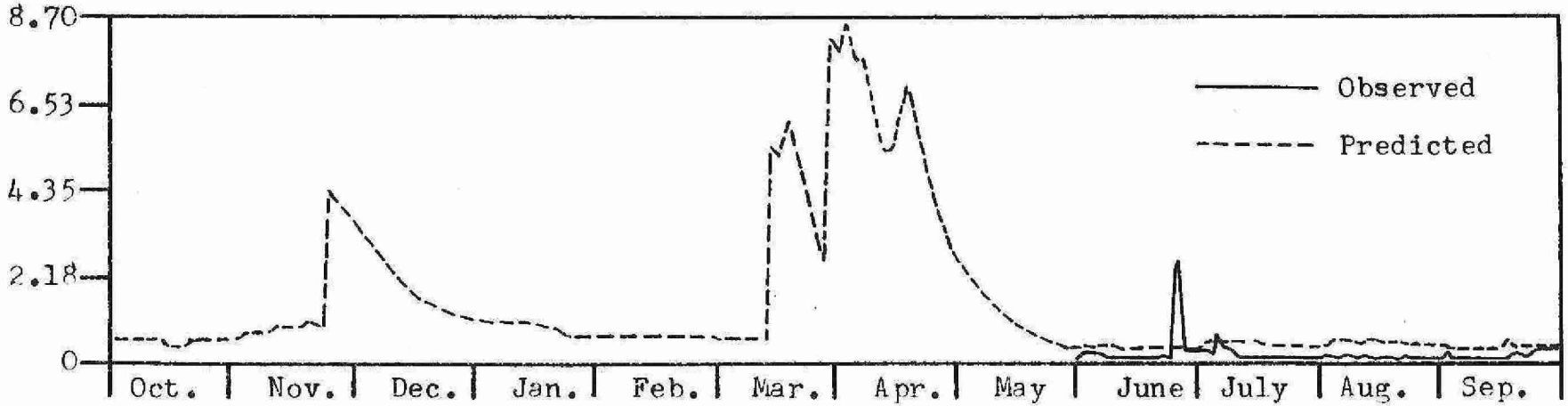
TOTAL FOR WATER YEAR = 819.01



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - TWELVE MILE NOR

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.53	0.56	3.70	1.17	0.65	0.44	7.58	2.35	0.50	0.48	0.39	0.44
2	0.52	0.58	3.52	1.14	0.64	0.43	8.70	2.21	0.48	0.47	0.38	0.43
3	0.50	0.61	3.35	1.12	0.63	0.42	8.11	2.07	0.47	0.45	0.37	0.42
4	0.49	0.63	3.19	1.09	0.62	0.42	7.56	1.94	0.45	0.44	0.57	0.41
5	0.48	0.65	3.05	1.06	0.61	0.41	7.66	1.83	0.44	0.47	0.58	0.40
6	0.52	0.69	2.91	1.04	0.60	0.41	7.17	1.72	0.42	0.63	0.56	0.39
7	0.50	0.72	2.78	1.02	0.59	0.40	6.68	1.61	0.41	0.60	0.53	0.38
8	0.49	0.74	2.66	1.00	0.58	0.40	6.22	1.52	0.40	0.58	0.51	0.37
9	0.48	0.76	2.54	0.97	0.58	0.39	5.79	1.43	0.39	0.55	0.50	0.41
10	0.47	0.79	2.44	0.95	0.57	0.39	5.41	1.35	0.38	0.53	0.49	0.40
11	0.46	0.81	2.34	0.93	0.56	0.38	5.45	1.27	0.37	0.51	0.48	0.40
12	0.45	0.83	2.24	0.92	0.55	0.69	5.48	1.20	0.36	0.49	0.46	0.38
13	0.45	0.86	2.15	0.90	0.54	0.64	6.97	1.13	0.35	0.48	0.45	0.37
14	0.44	0.88	2.07	0.88	0.54	0.26	6.55	1.07	0.34	0.46	0.43	0.37
15	0.45	0.90	1.99	0.86	0.53	0.88	6.17	1.01	0.34	0.45	0.42	0.36
16	0.44	0.93	1.92	0.85	0.52	0.43	5.82	0.96	0.33	0.43	0.68	0.35
17	0.43	0.95	1.85	0.83	0.51	0.07	5.57	0.91	0.32	0.42	0.64	0.60
18	0.42	0.97	1.78	0.82	0.51	0.74	5.33	0.86	0.36	0.41	0.62	0.55
19	0.41	0.99	1.72	0.80	0.50	0.43	5.23	0.82	0.35	0.40	0.60	0.54
20	0.41	1.01	1.67	0.79	0.49	0.14	5.21	0.78	0.41	0.39	0.57	0.61
21	0.56	1.03	1.61	0.78	0.49	0.88	4.93	0.74	0.40	0.38	0.64	0.58
22	0.54	1.05	1.56	0.76	0.48	0.63	4.60	0.71	0.39	0.37	0.61	0.56
23	0.52	1.07	1.51	0.75	0.47	0.40	4.28	0.68	0.38	0.36	0.59	0.54
24	0.51	1.09	1.46	0.74	0.47	0.18	3.98	0.65	0.37	0.36	0.57	0.53
25	0.50	1.11	1.42	0.72	0.46	2.98	3.70	0.62	0.37	0.35	0.54	0.51
26	0.48	2.48	1.38	0.71	0.45	2.80	3.44	0.59	0.36	0.35	0.53	0.50
27	0.47	4.50	1.34	0.70	0.44	4.62	3.19	0.57	0.35	0.34	0.51	0.49
28	0.46	4.21	1.30	0.69		4.92	2.96	0.55	0.53	0.33	0.49	0.48
29	0.45	4.03	1.27	0.68		5.35	2.74	0.53	0.50	0.33	0.48	0.55
30	0.60	3.86	1.23	0.67		8.13	2.54	0.51	0.50	0.32	0.47	0.53
31	0.58		1.20	0.66		8.18		0.49		0.40	0.45	
TOT	15.00	40.29	65.16	27.01	15.03	98.19	164.99	34.69	12.00	13.52	16.11	13.44

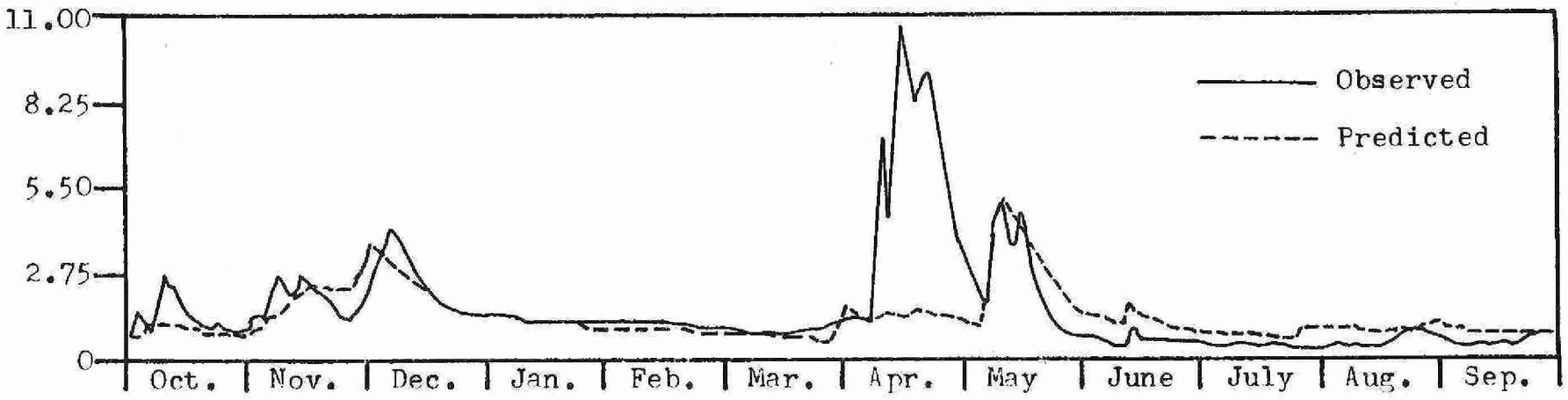
TOTAL FOR WATER YEAR = 515.44



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR 1 APIOS - TWELVE MILE NOR

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.75	0.49	4.08	1.25	0.70	0.47	1.70	1.05	1.49	0.75	0.80	0.89
2	0.73	0.51	3.72	1.22	0.69	0.46	1.55	1.00	1.42	0.72	0.99	0.86
3	0.69	0.67	3.54	1.19	0.68	0.46	1.45	0.95	1.35	0.70	0.94	0.83
4	0.66	0.69	3.38	1.17	0.66	0.45	1.36	0.89	1.31	0.68	0.91	0.80
5	0.64	0.70	3.22	1.14	0.66	0.44	1.29	0.90	1.25	0.66	0.87	0.78
6	0.62	0.72	3.08	1.11	0.65	0.44	1.21	1.60	1.19	0.65	0.84	0.75
7	0.59	0.81	2.94	1.09	0.64	0.43	1.23	1.56	1.13	0.67	0.81	0.73
8	1.29	0.83	2.81	1.07	0.63	0.43	1.16	2.71	1.09	0.68	0.78	0.73
9	1.20	0.84	2.69	1.04	0.62	0.42	1.09	4.30	1.04	0.66	0.76	0.74
10	1.14	1.61	2.58	1.02	0.61	0.41	1.02	4.65	1.00	0.65	0.73	0.72
11	1.11	1.59	2.48	1.00	0.60	0.41	1.59	5.29	0.95	0.63	0.71	0.70
12	1.06	1.56	2.38	0.98	0.59	0.40	1.66	4.93	1.73	0.61	0.69	0.72
13	1.01	1.54	2.29	0.96	0.58	0.40	1.68	4.68	1.61	0.60	0.67	0.70
14	0.96	1.52	2.20	0.94	0.58	0.39	1.58	4.42	1.52	0.59	0.65	0.70
15	0.94	1.51	2.12	0.93	0.57	0.39	1.48	4.14	1.45	0.57	0.64	0.68
16	0.90	1.52	2.04	0.91	0.56	0.38	1.38	3.88	1.38	0.56	0.63	0.67
17	0.86	1.48	1.97	0.89	0.55	0.38	1.29	3.63	1.31	0.55	0.62	0.65
18	0.82	1.41	1.90	0.88	0.54	0.37	1.30	3.41	1.25	0.54	0.80	0.67
19	0.78	1.35	1.83	0.86	0.54	0.37	1.54	3.20	1.19	0.53	0.80	0.65
20	0.75	1.30	1.77	0.85	0.53	0.36	2.00	3.00	1.14	0.52	0.77	0.64
21	0.72	1.25	1.71	0.83	0.52	0.36	1.88	2.82	1.09	0.51	0.75	0.62
22	0.69	1.21	1.66	0.82	0.51	0.35	1.75	2.65	1.04	0.51	0.72	0.61
23	0.66	1.16	1.61	0.80	0.51	0.35	1.64	2.49	1.00	0.50	0.99	0.60
24	0.64	1.11	1.56	0.79	0.50	0.34	1.55	2.35	0.96	0.49	1.07	0.58
25	0.62	1.07	1.51	0.78	0.49	0.34	1.48	2.21	0.92	0.49	1.03	0.57
26	0.58	1.03	1.47	0.76	0.49	0.34	1.42	2.09	0.89	0.86	0.98	0.56
27	0.57	1.19	1.43	0.75	0.48	0.33	1.37	1.97	0.86	0.81	0.95	0.59
28	0.55	1.16	1.39	0.74	0.47	0.33	1.32	1.86	0.83	0.78	1.04	0.57
29	0.54	1.13	1.35	0.73	0.0	0.33	1.23	1.76	0.80	0.90	1.00	0.56
30	0.52	1.10	1.32	0.72	0.0	0.32	1.14	1.66	0.77	0.86	0.96	0.63
31	0.51	0.0	1.28	0.71	0.0	1.10	0.0	1.57	0.0	0.83	0.92	0.0
TOT	24.10	50.26	69.33	28.93	16.13	12.75	43.35	83.63	34.94	20.09	25.84	20.50

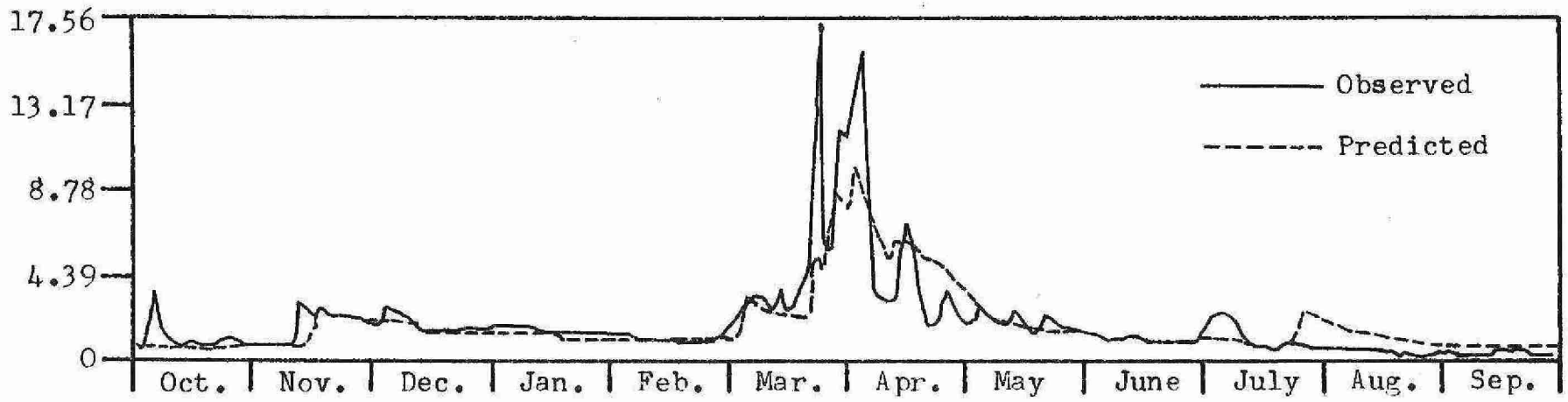
TOTAL FOR WATER YEAR = 429.85



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - TWELVE MILE NOR

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.61	0.48	2.22	1.18	0.76	0.52	7.88	3.04	0.87	0.76	1.66	0.64
2	0.60	0.52	2.16	1.17	0.75	0.52	10.04	2.85	0.83	0.73	1.57	0.66
3	0.85	0.56	2.10	1.15	0.74	1.33	9.19	2.78	0.79	0.71	1.49	0.65
4	0.82	0.60	2.05	1.13	0.73	2.73	8.57	2.60	0.76	0.68	1.41	0.63
5	0.80	0.64	2.00	1.11	0.72	2.14	7.98	2.44	0.73	0.65	1.34	0.61
6	0.78	0.68	1.95	1.10	0.71	2.91	7.43	2.29	0.70	0.63	1.28	0.60
7	0.75	0.72	1.90	1.08	0.70	2.74	6.92	2.15	0.67	0.61	1.22	0.58
8	0.73	0.76	1.86	1.06	0.69	2.57	6.44	2.02	0.65	0.59	1.17	0.57
9	0.71	0.80	1.82	1.05	0.68	2.42	6.00	1.90	0.63	0.57	1.13	0.56
10	0.69	0.84	1.78	1.03	0.67	2.28	5.59	1.78	0.62	0.55	1.08	0.55
11	0.67	0.88	1.74	1.02	0.66	2.15	5.21	1.68	0.60	0.54	1.04	0.54
12	0.65	0.91	1.70	1.00	0.66	2.03	4.86	1.58	0.59	0.52	1.00	0.53
13	0.64	0.95	1.67	0.99	0.65	1.92	4.53	1.49	0.57	0.51	0.96	0.52
14	0.62	0.99	1.63	0.97	0.64	1.81	4.23	1.40	0.56	0.50	0.93	0.51
15	0.61	1.03	1.60	0.96	0.63	1.71	3.95	1.32	0.54	0.48	0.89	0.50
16	0.60	1.07	1.57	0.95	0.62	1.62	3.70	1.24	0.53	0.47	0.86	0.49
17	0.58	1.11	1.54	0.93	0.61	1.53	3.47	1.17	0.52	0.46	0.83	0.48
18	0.58	1.34	1.51	0.92	0.61	1.45	3.26	1.10	0.51	0.45	0.80	0.47
19	0.57	1.63	1.48	0.91	0.60	1.37	3.07	1.04	0.50	0.44	0.77	0.46
20	0.56	1.59	1.45	0.90	0.59	1.30	2.89	0.98	0.49	0.43	0.75	0.45
21	0.55	1.54	1.43	0.88	0.58	1.23	2.73	0.92	0.48	0.43	0.72	0.44
22	0.54	1.45	1.40	0.87	0.57	1.17	2.58	0.87	0.47	0.42	0.70	0.43
23	0.53	1.38	1.38	0.86	0.57	1.11	2.44	0.82	0.46	0.41	0.68	0.42
24	0.53	1.33	1.35	0.85	0.56	1.05	2.31	0.78	0.45	0.40	0.66	0.41
25	0.53	1.33	1.33	0.84	0.55	1.00	2.19	0.74	0.44	0.40	0.64	0.40
26	0.52	1.31	1.31	0.82	0.54	0.95	2.08	0.70	0.43	0.39	0.62	0.39
27	0.51	1.28	1.28	0.81	0.54	0.91	1.98	0.67	0.42	0.38	0.60	0.38
28	0.50	1.27	1.26	0.80	0.53	0.86	1.88	0.64	0.41	0.37	0.59	0.37
29	0.50	1.25	1.24	0.79	0.0	0.82	1.79	0.61	0.40	0.36	0.57	0.36
30	0.49	1.23	1.22	0.78	0.0	0.78	1.71	0.58	0.39	0.35	0.55	0.35
31	0.48	0.0	1.20	0.77	0.0	0.74	0.0	0.56	0.0	0.34	0.53	0.0
TOT	19.08	46.11	50.10	29.69	17.86	94.32	173.33	50.57	20.76	28.94	31.99	17.53

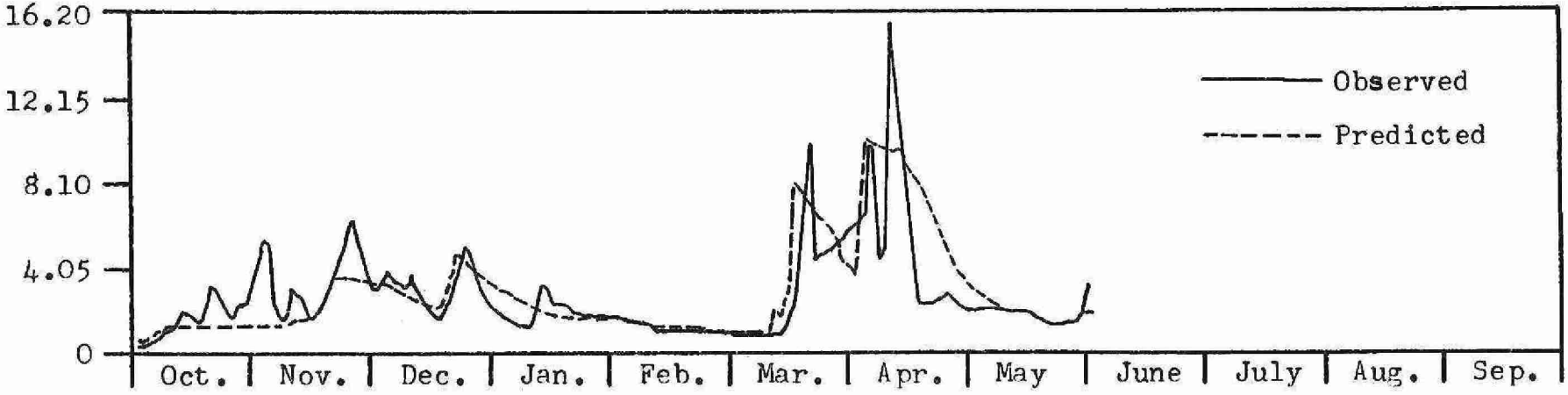
TOTAL FOR WATER YEAR = 580.28



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - TWELVE MILE NOR

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.48	1.08	3.59	3.19	1.15	0.69	4.84	3.35	1.16	1.44	1.89	1.48
2	0.47	1.09	3.46	3.05	1.12	0.67	4.66	3.14	1.11	1.37	1.79	1.41
3	0.46	1.10	3.32	2.92	1.10	0.66	4.36	2.94	1.06	1.30	1.70	1.35
4	0.71	1.12	3.19	2.79	1.08	0.66	4.07	2.76	1.01	1.24	1.62	1.29
5	0.86	1.15	3.06	2.68	1.05	0.65	3.86	2.59	0.96	1.18	1.55	1.24
6	0.89	1.15	2.93	2.57	1.03	0.64	3.66	2.43	1.01	1.13	1.48	1.19
7	0.86	1.17	2.80	2.46	1.01	0.63	3.48	2.29	0.96	1.08	1.42	1.14
8	1.02	1.18	2.68	2.37	0.99	0.62	3.31	2.15	0.92	1.04	1.36	1.10
9	0.97	1.20	2.56	2.28	0.97	0.61	10.65	2.03	0.88	0.99	1.30	1.06
10	0.93	1.21	2.45	2.19	0.95	0.60	10.35	1.91	0.84	0.95	1.25	1.02
11	0.94	1.23	2.34	2.11	0.94	0.59	9.98	1.80	0.81	0.91	1.20	0.98
12	0.99	1.24	2.24	2.03	0.92	0.58	10.38	1.70	0.78	0.88	1.15	0.94
13	0.95	1.26	2.14	1.96	0.90	0.58	9.71	1.60	0.75	0.84	1.11	0.91
14	0.91	1.27	2.05	1.90	0.89	0.57	10.81	1.51	0.72	0.81	1.06	0.87
15	0.88	1.29	1.96	1.83	0.87	0.56	10.25	1.43	0.69	0.78	1.02	0.84
16	0.85	1.31	1.88	1.77	0.86	0.55	9.56	1.35	0.67	0.75	0.98	0.81
17	0.82	1.33	1.80	1.72	0.84	1.90	8.90	1.28	0.65	0.72	0.95	0.78
18	0.79	1.35	1.72	1.66	0.83	1.70	8.35	1.23	0.63	0.69	0.91	0.75
19	1.09	1.81	1.65	1.61	0.81	1.61	7.82	1.17	0.60	0.67	0.88	0.72
20	1.24	1.04	1.58	1.57	0.80	3.30	7.46	1.11	2.33	0.64	0.85	0.69
21	1.18	0.95	1.51	1.52	0.79	8.35	6.98	1.05	1.20	0.61	0.82	0.66
22	1.13	0.86	1.44	1.48	0.78	7.35	6.49	1.00	1.00	0.59	0.79	0.64
23	1.09	0.78	1.38	1.44	0.76	6.86	6.04	0.96	0.89	0.56	0.76	0.61
24	1.04	0.71	1.32	1.40	0.75	6.41	5.61	0.91	1.78	0.54	0.74	0.59
25	1.00	0.65	1.26	1.36	0.74	5.99	5.22	0.87	1.69	0.52	0.71	0.57
26	0.96	0.94	1.21	1.32	0.73	5.78	4.84	0.83	1.60	0.50	0.69	0.55
27	1.00	0.86	1.16	1.29	0.72	5.41	4.50	0.80	1.51	0.48	0.67	0.53
28	0.96	0.79	1.11	1.26	0.71	5.43	4.17	0.77	1.36	0.46	0.64	0.51
29	0.92	0.67	1.06	1.23	0.70	5.30	3.87	0.75	1.61	0.44	0.62	0.49
30	0.92	0.0	1.02	1.20	0.0	5.09	3.58	1.25	1.52	1.22	1.25	0.89
31	0.89	0.0	0.54	1.17	0.0	5.13	0.0	1.23	0.0	1.99	1.21	0.0
TOT	28.42	59.88	92.79	59.35	25.79	85.46	205.26	50.20	36.45	43.79	36.55	31.47

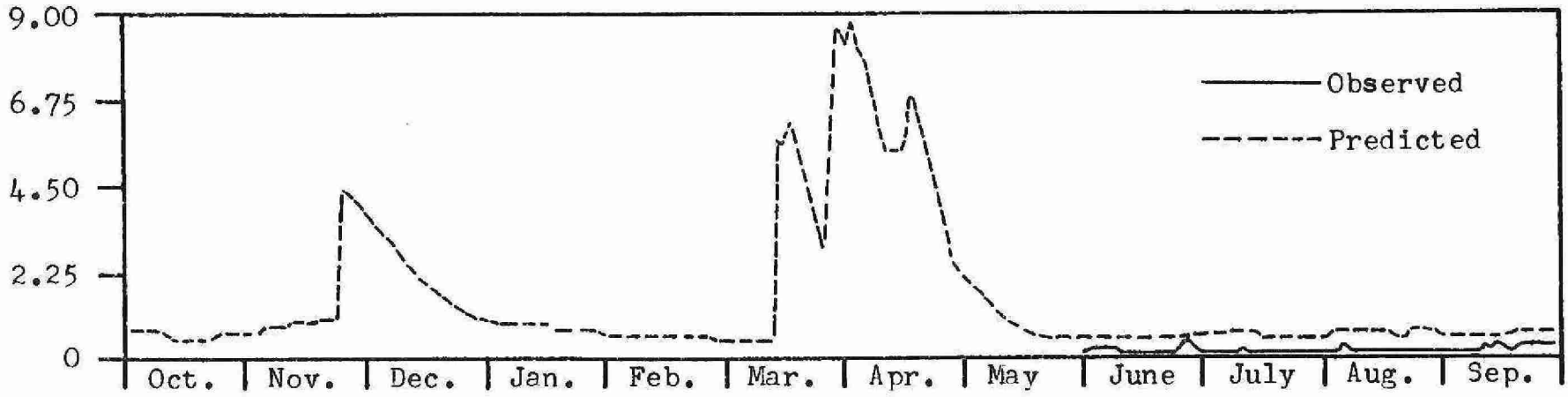
TOTAL FOR WATER YEAR = 755.39



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - 12 MILE SOUTH

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.52	0.56	3.90	1.12	0.64	0.43	8.14	2.12	0.42	0.49	0.39	0.43
2	0.50	0.58	3.68	1.09	0.63	0.43	9.10	1.97	0.41	0.47	0.38	0.42
3	0.49	0.61	3.48	1.07	0.62	0.42	8.63	1.84	0.40	0.45	0.37	0.41
4	0.48	0.63	3.29	1.04	0.61	0.42	7.99	1.71	0.39	0.44	0.57	0.40
5	0.47	0.65	3.12	1.02	0.60	0.41	7.99	1.60	0.38	0.46	0.60	0.38
6	0.50	0.69	2.96	1.00	0.59	0.41	7.49	1.49	0.37	0.62	0.57	0.37
7	0.49	0.71	2.81	0.98	0.58	0.40	6.91	1.39	0.36	0.62	0.55	0.37
8	0.48	0.73	2.67	0.96	0.58	0.39	6.38	1.30	0.35	0.59	0.53	0.36
9	0.47	0.76	2.54	0.94	0.57	0.39	5.89	1.22	0.34	0.56	0.51	0.40
10	0.46	0.78	2.42	0.92	0.56	0.38	5.45	1.14	0.33	0.54	0.50	0.40
11	0.45	0.80	2.31	0.90	0.55	0.72	5.44	1.07	0.32	0.51	0.48	0.39
12	0.44	0.82	2.21	0.88	0.55	3.67	5.47	1.01	0.32	0.49	0.46	0.38
13	0.43	0.85	2.11	0.87	0.54	5.96	6.92	0.95	0.31	0.47	0.45	0.37
14	0.43	0.87	2.03	0.85	0.53	5.85	6.71	0.89	0.31	0.46	0.43	0.36
15	0.43	0.89	1.94	0.84	0.52	6.37	6.26	0.84	0.30	0.44	0.42	0.35
16	0.43	0.92	1.87	0.82	0.52	5.97	5.86	0.80	0.30	0.43	0.67	0.34
17	0.42	0.94	1.79	0.81	0.51	5.53	5.57	0.75	0.29	0.41	0.67	0.35
18	0.41	0.96	1.73	0.79	0.50	5.11	5.29	0.71	0.33	0.40	0.64	0.34
19	0.40	0.98	1.66	0.78	0.50	4.74	5.16	0.68	0.33	0.39	0.61	0.33
20	0.40	1.00	1.60	0.77	0.49	4.39	5.12	0.64	0.39	0.38	0.59	0.60
21	0.54	1.02	1.55	0.75	0.48	4.07	4.85	0.61	0.39	0.37	0.65	0.60
22	0.54	1.04	1.50	0.74	0.48	3.77	4.49	0.58	0.38	0.36	0.63	0.57
23	0.52	1.06	1.45	0.73	0.47	3.50	4.14	0.56	0.37	0.35	0.60	0.55
24	0.51	1.08	1.40	0.72	0.46	3.25	3.82	0.53	0.36	0.35	0.57	0.54
25	0.49	1.10	1.36	0.71	0.46	3.02	3.52	0.51	0.35	0.34	0.55	0.52
26	0.48	2.44	1.32	0.70	0.45	2.80	3.24	0.49	0.35	0.34	0.53	0.60
27	0.47	4.59	1.28	0.69	0.44	2.61	2.98	0.47	0.34	0.33	0.51	0.59
28	0.46	4.55	1.25	0.68	0.44	4.83	2.74	0.45	0.51	0.32	0.49	0.57
29	0.45	4.32	1.21	0.67	0.0	5.55	2.52	0.44	0.51	0.32	0.48	0.55
30	0.58	4.10	1.18	0.66	0.0	8.34	2.31	0.42	0.50	0.31	0.46	0.53
31	0.58	0.0	1.15	0.65	0.0	8.73	0.0	0.41	0.0	0.39	0.45	0.0
TOT	14.72	41.04	64.79	26.13	14.86	102.86	166.38	29.63	10.99	13.38	16.28	13.37

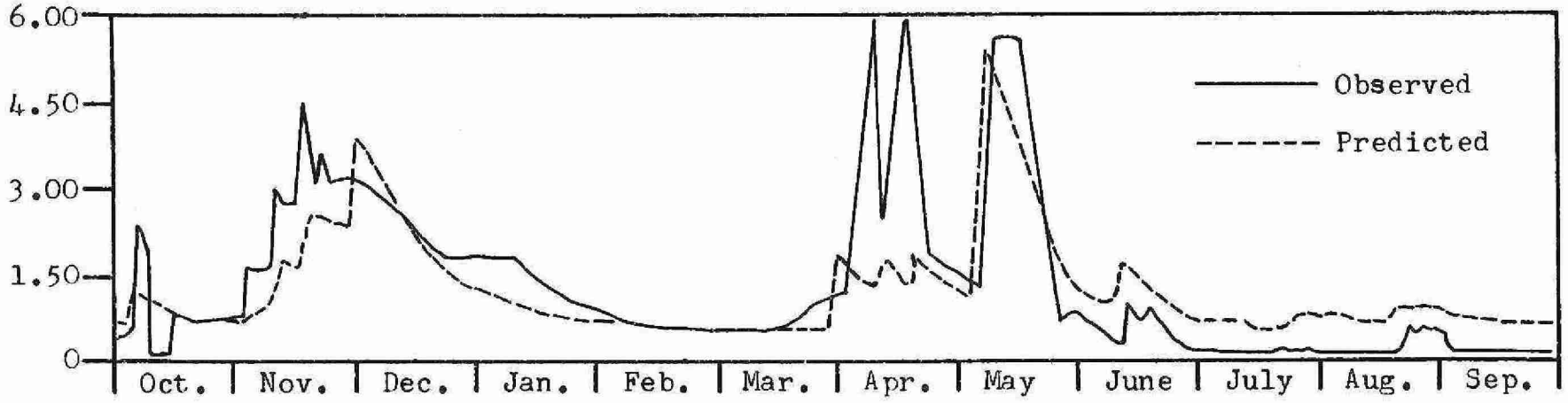
TOTAL FOR WATER YEAR = 514.43



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - 12 MILE SOUTH

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.75	0.47	4.04	1.21	0.68	0.47	1.77	1.05	1.37	0.70	0.82	0.89
2	0.75	0.49	3.95	1.18	0.68	0.46	1.71	0.98	1.29	0.67	0.99	0.86
3	0.71	0.65	3.73	1.15	0.67	0.45	1.58	0.93	1.22	0.65	0.97	0.82
4	0.68	0.68	3.53	1.12	0.66	0.45	1.47	0.87	1.19	0.64	0.93	0.79
5	0.65	0.69	3.35	1.10	0.65	0.44	1.38	0.87	1.13	0.62	0.89	0.77
6	0.63	0.71	3.17	1.07	0.64	0.44	1.29	1.56	1.07	0.60	0.85	0.74
7	0.60	0.80	3.01	1.05	0.63	0.43	1.29	1.61	1.02	0.63	0.82	0.72
8	1.28	0.82	2.87	1.03	0.62	0.42	1.22	2.76	0.98	0.65	0.79	0.71
9	1.28	0.84	2.73	1.01	0.61	0.42	1.14	4.46	0.93	0.64	0.76	0.72
10	1.21	1.58	2.60	0.99	0.60	0.41	1.06	5.00	0.89	0.62	0.73	0.71
11	1.16	1.66	2.48	0.97	0.59	0.41	1.60	5.59	0.85	0.60	0.71	0.69
12	1.10	1.62	2.37	0.95	0.59	0.40	1.74	5.29	1.62	0.59	0.68	0.70
13	1.04	1.59	2.27	0.93	0.58	0.40	1.76	4.97	1.61	0.57	0.66	0.68
14	0.98	1.56	2.17	0.92	0.57	0.39	1.66	4.66	1.52	0.56	0.64	0.68
15	0.96	1.54	2.09	0.90	0.56	0.39	1.54	4.32	1.43	0.55	0.62	0.66
16	0.91	2.52	2.00	0.88	0.55	0.38	1.43	4.01	1.35	0.54	0.62	0.65
17	0.86	2.60	1.93	0.87	0.55	0.38	1.33	3.73	1.28	0.53	0.61	0.64
18	0.82	2.52	1.85	0.85	0.54	0.37	1.32	3.46	1.21	0.52	0.78	0.65
19	0.78	2.43	1.79	0.84	0.53	0.37	1.56	3.22	1.15	0.51	0.80	0.64
20	0.74	2.36	1.72	0.82	0.53	0.36	2.06	3.00	1.10	0.50	0.78	0.62
21	0.71	2.50	1.66	0.81	0.52	0.36	2.00	2.79	1.04	0.49	0.75	0.61
22	0.68	2.47	1.61	0.80	0.51	0.35	1.84	2.60	0.99	0.49	0.72	0.59
23	0.65	2.41	1.56	0.79	0.50	0.35	1.71	2.43	0.95	0.48	0.99	0.58
24	0.62	2.35	1.51	0.77	0.50	0.34	1.60	2.27	0.91	0.47	1.10	0.57
25	0.60	2.29	1.46	0.76	0.49	0.34	1.53	2.12	0.87	0.47	1.06	0.56
26	0.57	2.24	1.42	0.75	0.48	0.34	1.45	1.99	0.83	0.82	1.01	0.55
27	0.55	2.20	1.38	0.74	0.48	0.33	1.39	1.86	0.80	0.83	0.97	0.57
28	0.53	2.15	1.34	0.73	0.47	0.33	1.33	1.74	0.77	0.80	1.05	0.56
29	0.51	2.12	1.30	0.72	0.0	0.32	1.24	1.64	0.74	0.91	1.02	0.55
30	0.50	2.08	1.27	0.71	0.0	0.32	1.14	1.54	0.72	0.89	0.97	0.61
31	0.48	0.0	1.24	0.70	0.0	1.08	0.0	1.45	0.0	0.85	0.93	0.0
TOT	24.32	50.94	69.41	28.09	15.98	12.70	45.16	84.77	32.86	19.40	26.00	20.09

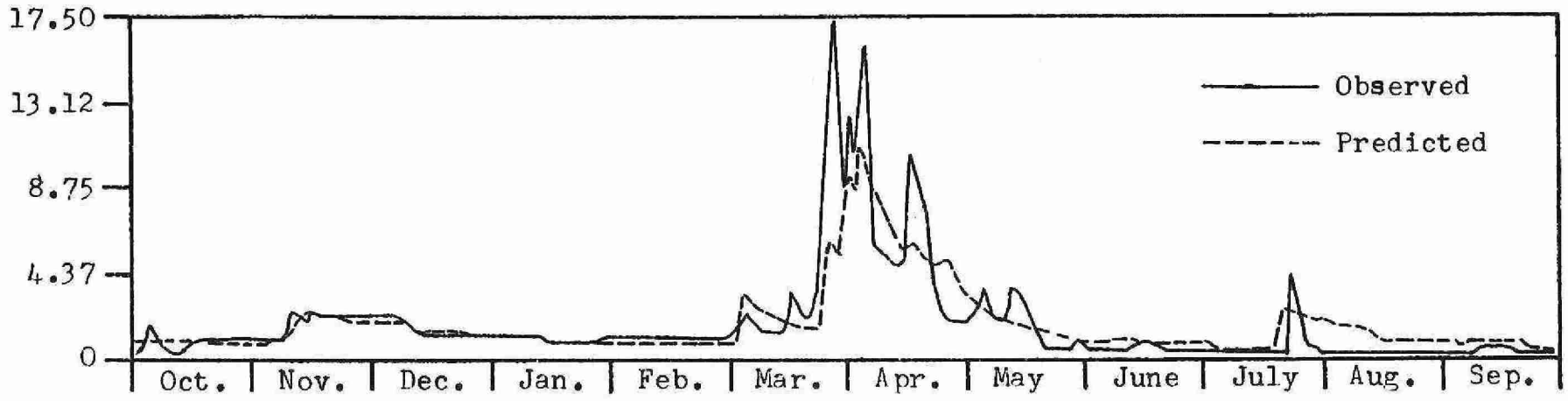
TOTAL FOR WATER YEAR = 429.71



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - 12 MILE SOUTH

DAY	OCT.	NOV.	DEC.	JAN.	FEb.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.61	0.47	2.21	1.17	0.75	0.52	8.50	2.83	0.78	0.77	1.69	0.61
2	0.59	0.51	2.14	1.15	0.74	0.51	10.47	2.63	0.75	0.74	1.60	0.63
3	0.83	0.55	2.08	1.13	0.73	1.31	9.89	2.55	0.71	0.71	1.50	0.61
4	0.83	0.59	2.03	1.11	0.73	2.79	9.13	2.38	0.68	0.68	1.41	0.60
5	0.81	0.63	1.97	1.10	0.72	3.38	8.42	2.22	0.65	0.65	1.33	0.58
6	0.78	0.67	1.92	1.08	0.71	3.20	7.77	2.06	0.62	0.62	1.26	0.57
7	0.76	0.71	1.88	1.07	0.70	2.98	7.16	1.92	0.60	0.60	1.27	0.55
8	0.73	0.75	1.83	1.05	0.69	2.78	6.61	1.79	0.58	0.58	1.21	0.54
9	0.71	0.79	1.79	1.04	0.68	2.59	6.10	1.67	0.56	0.56	1.27	0.53
10	0.68	0.83	1.75	1.02	0.67	2.42	5.63	1.56	0.85	0.54	1.23	0.53
11	0.66	0.87	1.71	1.01	0.66	2.26	5.19	1.46	0.84	0.52	1.16	0.52
12	0.64	0.90	1.67	0.99	0.65	2.11	4.80	1.66	0.80	0.51	1.10	0.51
13	0.63	0.94	1.63	0.98	0.64	1.98	5.96	1.58	0.76	0.49	1.05	0.65
14	0.61	1.02	1.60	0.96	0.64	1.85	6.12	1.52	0.73	0.48	1.00	0.68
15	0.60	1.07	1.57	0.95	0.63	1.74	6.10	1.43	0.70	0.47	0.95	0.67
16	0.58	1.10	1.54	0.94	0.62	1.63	5.75	1.34	0.67	0.45	0.91	0.64
17	0.57	2.31	1.51	0.93	0.61	1.53	5.39	1.26	0.64	0.44	0.88	0.62
18	0.56	2.75	1.48	0.91	0.60	1.44	5.02	1.18	0.61	0.43	0.84	0.61
19	0.55	2.73	1.45	0.90	0.59	1.36	4.67	1.11	0.59	0.42	0.81	0.59
20	0.54	2.66	1.42	0.89	0.59	1.46	4.39	1.05	0.57	0.42	0.77	0.57
21	0.53	2.59	1.40	0.88	0.58	1.66	5.03	0.99	0.61	0.41	0.74	0.56
22	0.52	2.53	1.37	0.86	0.57	1.82	4.99	0.94	0.60	0.40	0.72	0.55
23	0.52	2.48	1.35	0.85	0.56	3.34	4.73	0.89	0.58	0.39	0.82	0.53
24	0.51	2.43	1.33	0.84	0.56	5.87	4.78	0.84	0.56	1.89	0.80	0.52
25	0.51	2.38	1.31	0.83	0.55	6.33	4.46	0.85	0.54	2.56	0.77	0.51
26	0.51	2.35	1.28	0.82	0.54	5.92	4.28	1.04	0.53	2.46	0.74	0.50
27	0.50	2.31	1.26	0.81	0.54	5.48	3.96	1.01	0.51	2.30	0.71	0.49
28	0.49	2.28	1.24	0.80	0.53	5.08	3.65	0.96	0.49	2.15	0.69	0.48
29	0.48	2.25	1.22	0.79	0.0	6.31	3.35	0.91	0.48	2.01	0.66	0.48
30	0.48	2.23	1.20	0.78	0.0	8.02	3.09	0.87	0.77	1.88	0.64	0.47
31	0.47	0.0	1.18	0.76	0.0	9.08	0.0	0.82	0.0	1.76	0.62	0.0
TOT	18.82	46.69	49.32	29.38	17.78	98.75	175.37	45.35	19.37	29.30	31.16	16.89

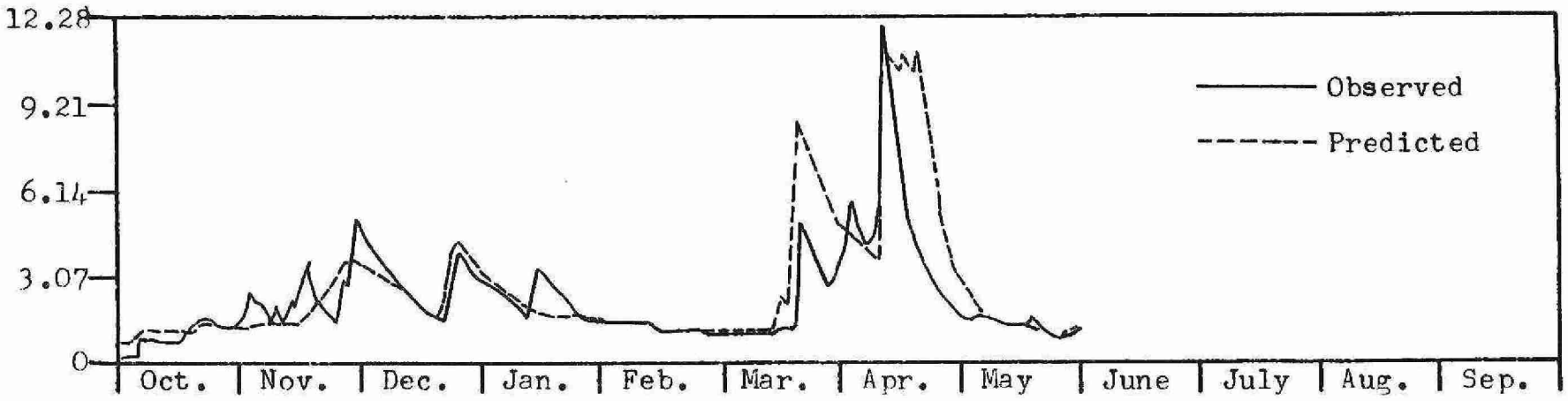
TOTAL FOR WATER YEAR = 578.18



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - 12 MILE SOUTH

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.46	1.06	3.64	3.23	1.10	0.67	5.01	3.07	1.12	1.44	1.91	1.47
2	0.45	1.09	3.49	3.07	1.07	0.66	4.78	2.85	1.06	1.36	1.80	1.43
3	0.45	1.10	3.35	2.92	1.05	0.65	4.45	2.65	1.00	1.29	1.70	1.36
4	0.69	1.11	3.22	2.78	1.03	0.64	4.12	2.47	0.95	1.22	1.60	1.30
5	0.86	1.12	3.10	2.65	1.01	0.63	3.87	2.30	0.90	1.16	1.53	1.24
6	0.92	1.13	2.98	2.53	0.99	0.63	3.63	2.14	0.95	1.10	1.45	1.18
7	0.89	1.15	2.88	2.42	0.97	0.62	5.28	2.00	0.91	1.05	1.54	1.13
8	1.04	1.16	2.78	2.31	0.95	0.61	9.03	1.87	0.87	1.21	1.48	1.08
9	1.01	1.18	2.69	2.22	0.94	0.60	11.18	1.75	0.83	1.17	1.40	1.04
10	0.96	1.20	2.60	2.13	0.92	0.59	11.08	1.64	0.79	1.11	1.33	1.00
11	0.96	1.22	2.52	2.04	0.90	0.58	10.63	1.54	0.76	1.06	1.27	0.96
12	1.01	1.24	2.44	1.96	0.89	0.58	10.94	1.44	0.72	1.01	1.21	0.93
13	0.97	1.27	2.37	1.89	0.87	0.57	10.29	1.35	0.70	0.96	1.15	0.96
14	0.93	1.29	2.30	1.82	0.86	0.56	11.24	1.27	0.67	0.93	1.10	0.94
15	0.89	1.31	2.23	1.76	0.84	0.55	10.79	1.20	0.64	0.89	1.06	0.90
16	0.85	1.33	2.17	1.70	0.83	0.55	10.00	1.13	0.62	1.74	1.01	0.87
17	0.82	1.37	2.12	1.64	0.82	1.87	9.22	1.07	0.60	1.73	0.97	0.88
18	0.79	1.43	2.06	1.59	0.80	1.85	8.57	1.02	0.58	1.63	0.94	0.86
19	1.08	1.78	2.01	1.54	0.79	1.74	7.96	0.97	2.23	1.53	0.90	0.83
20	1.27	2.05	1.96	1.49	0.78	3.37	7.53	0.92	2.26	1.60	0.87	0.80
21	1.22	2.26	1.92	1.45	0.77	8.53	6.99	0.88	2.11	1.53	0.84	0.78
22	1.16	2.70	1.87	1.41	0.76	8.20	6.44	0.83	1.98	1.45	0.82	1.14
23	1.16	3.30	3.05	1.37	0.74	7.58	5.94	0.79	1.85	1.37	0.79	1.13
24	1.11	3.32	4.94	1.33	0.73	7.01	5.47	0.76	1.74	1.30	0.77	1.08
25	1.06	3.59	4.78	1.30	0.72	6.49	5.04	0.72	1.63	1.23	0.75	1.04
26	1.01	3.83	4.51	1.26	0.71	6.18	4.64	0.69	1.53	1.37	0.73	1.00
27	0.96	4.05	4.25	1.23	0.70	5.75	4.26	0.66	1.44	1.32	0.71	0.97
28	0.99	3.98	4.01	1.20	0.69	5.70	3.92	0.64	1.36	2.34	0.70	0.93
29	0.96	3.86	3.79	1.17	0.68	5.55	3.60	0.63	1.59	2.31	0.68	0.90
30	0.92	3.74	3.59	1.15	0.0	5.30	3.31	1.12	1.53	2.16	1.19	0.87
31	0.88	0.0	3.40	1.12	0.0	5.30	0.0	1.18	0.0	2.03	1.22	0.0
TOT	28.74	60.23	93.02	57.65	24.94	90.12	209.23	43.58	35.92	43.58	35.43	31.01

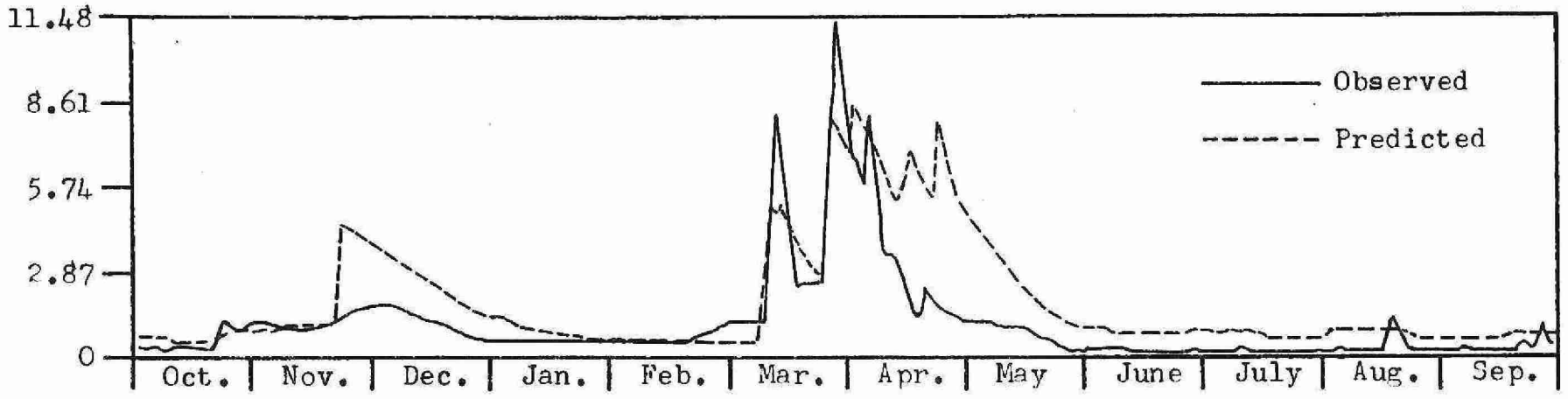
TOTAL FOR WATER YEAR = 753.45



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - BAKER CREEK

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.63	0.69	3.61	1.30	0.71	0.47	6.73	4.18	0.97	0.59	0.53	0.52
2	0.61	0.71	3.46	1.27	0.70	0.46	8.50	3.94	0.93	0.58	0.52	0.51
3	0.60	0.73	3.32	1.24	0.69	0.46	7.82	3.72	0.90	0.56	0.51	0.50
4	0.58	0.75	3.19	1.21	0.68	0.45	7.36	3.52	0.86	0.55	0.72	0.49
5	0.57	0.78	3.06	1.18	0.67	0.45	6.92	3.33	0.83	0.58	0.74	0.48
6	0.61	0.83	2.95	1.16	0.66	0.44	6.51	3.15	0.80	0.86	0.71	0.47
7	0.59	0.85	2.83	1.13	0.65	0.43	6.12	2.98	0.77	0.81	0.69	0.46
8	0.58	0.87	2.73	1.11	0.64	0.43	5.76	2.83	0.75	0.78	0.67	0.46
9	0.56	0.89	2.63	1.08	0.63	0.42	5.41	2.68	0.72	0.75	0.65	0.54
10	0.55	0.92	2.53	1.06	0.62	0.42	5.09	2.53	0.70	0.73	0.64	0.52
11	0.54	0.94	2.44	1.04	0.61	0.63	5.14	2.40	0.68	0.70	0.62	0.51
12	0.53	0.96	2.36	1.02	0.60	3.27	5.20	2.28	0.66	0.68	0.60	0.50
13	0.52	0.99	2.27	1.00	0.59	5.27	6.56	2.16	0.64	0.66	0.59	0.49
14	0.51	1.01	2.20	0.98	0.58	4.79	6.15	2.05	0.62	0.64	0.57	0.48
15	0.51	1.03	2.12	0.96	0.57	5.36	5.84	1.95	0.60	0.62	0.56	0.47
16	0.50	1.05	2.05	0.94	0.57	4.97	5.56	1.85	0.59	0.61	0.72	0.46
17	0.49	1.08	1.99	0.92	0.56	4.69	5.36	1.76	0.58	0.59	0.69	0.48
18	0.48	1.10	1.93	0.90	0.55	4.42	5.16	1.67	0.63	0.58	0.67	0.47
19	0.47	1.12	1.87	0.89	0.54	4.18	5.09	1.59	0.61	0.56	0.66	0.46
20	0.46	1.14	1.81	0.87	0.53	3.94	6.80	1.52	0.60	0.55	0.64	0.76
21	0.66	1.16	1.75	0.86	0.53	3.73	8.07	1.45	0.58	0.54	0.67	0.71
22	0.62	1.18	1.70	0.84	0.52	3.52	7.48	1.38	0.56	0.52	0.65	0.69
23	0.61	1.20	1.66	0.83	0.51	3.33	7.02	1.32	0.55	0.51	0.63	0.67
24	0.59	1.22	1.61	0.81	0.50	3.15	6.59	1.26	0.54	0.51	0.61	0.65
25	0.58	1.24	1.56	0.80	0.50	2.97	6.18	1.20	0.54	0.50	0.59	0.63
26	0.56	2.57	1.52	0.78	0.49	2.81	5.80	1.15	0.52	0.49	0.58	0.75
27	0.55	4.31	1.48	0.77	0.48	2.69	5.44	1.10	0.51	0.48	0.57	0.72
28	0.54	3.99	1.44	0.76	0.48	4.86	5.09	1.06	0.64	0.47	0.55	0.70
29	0.52	3.85	1.40	0.75	0.0	5.21	4.77	1.01	0.61	0.46	0.56	0.69
30	0.67	3.73	1.37	0.73	0.0	7.89	4.46	0.97	0.60	0.46	0.54	0.67
31	0.71	0.0	1.33	0.72	0.0	7.14	0.0	0.94	0.0	0.55	0.53	0.0
TOT	17.53	42.88	68.17	29.91	16.35	93.24	184.00	64.91	20.07	18.47	19.16	16.91

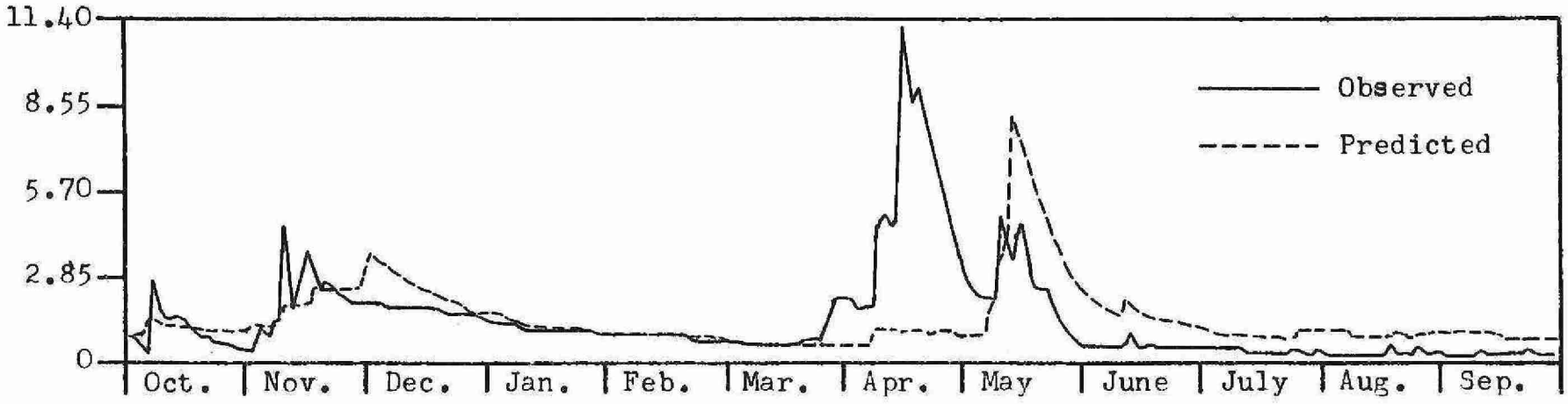
TOTAL FOR WATER YEAR = 591.60



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - BAKER CREEK

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.85	0.61	4.14	1.50	0.84	0.56	0.45	0.70	2.72	0.91	0.87	0.97
2	0.81	0.64	3.76	1.46	0.83	0.55	0.43	0.67	2.58	0.89	0.98	0.94
3	0.79	0.87	3.61	1.43	0.82	0.55	0.41	0.64	2.45	0.86	0.94	0.91
4	0.76	0.88	3.48	1.40	0.80	0.54	0.40	0.61	2.36	0.83	0.91	0.89
5	0.74	0.90	3.35	1.37	0.79	0.53	0.39	0.64	2.24	0.81	0.88	0.86
6	0.71	0.92	3.22	1.34	0.78	0.52	0.37	1.24	2.13	0.79	0.86	0.84
7	0.69	0.99	3.11	1.31	0.77	0.52	0.46	1.20	2.03	0.77	0.83	0.85
8	1.39	1.01	3.00	1.29	0.76	0.51	0.45	1.91	1.95	0.75	0.81	0.87
9	1.28	1.03	2.89	1.26	0.75	0.50	0.43	3.31	1.86	0.73	0.79	0.95
10	1.22	1.82	2.80	1.24	0.74	0.50	0.41	3.60	1.77	0.71	0.76	0.91
11	1.19	1.78	2.70	1.21	0.72	0.49	1.15	4.36	1.69	0.69	0.75	0.88
12	1.15	1.77	2.61	1.19	0.71	0.48	1.21	6.53	1.99	0.68	0.73	0.93
13	1.11	1.76	2.53	1.17	0.70	0.48	1.25	8.16	1.87	0.66	0.71	0.90
14	1.06	1.76	2.45	1.14	0.69	0.47	1.18	7.47	1.78	0.65	0.69	0.87
15	1.06	1.75	2.37	1.12	0.68	0.46	1.12	7.04	1.70	0.64	0.68	0.85
16	1.01	2.77	2.30	1.10	0.67	0.46	1.05	6.64	1.63	0.62	0.67	0.86
17	0.97	2.71	2.23	1.08	0.66	0.45	1.00	6.26	1.56	0.61	0.66	0.83
18	0.94	2.66	2.16	1.06	0.66	0.45	1.02	5.91	1.49	0.60	0.80	0.83
19	0.91	2.62	2.10	1.04	0.65	0.44	1.24	5.58	1.43	0.59	0.83	0.81
20	0.88	2.58	2.04	1.03	0.64	0.43	1.17	5.26	1.37	0.58	0.81	0.79
21	0.85	2.69	1.98	1.01	0.63	0.43	1.10	4.97	1.31	0.57	0.78	0.77
22	0.82	2.66	1.93	0.99	0.62	0.42	1.03	4.70	1.26	0.56	0.76	0.75
23	0.79	2.62	1.88	0.97	0.61	0.42	0.97	4.44	1.21	0.55	0.98	0.74
24	0.77	2.59	1.83	0.96	0.60	0.41	0.93	4.20	1.17	0.55	1.04	0.72
25	0.74	2.56	1.78	0.94	0.59	0.41	0.92	3.97	1.12	0.54	1.00	0.70
26	0.72	2.53	1.73	0.93	0.59	0.40	0.90	3.76	1.08	1.01	0.96	0.69
27	0.70	2.51	1.69	0.91	0.58	0.40	0.88	3.55	1.05	0.94	0.93	0.69
28	0.68	2.49	1.65	0.90	0.57	0.39	0.86	3.37	1.01	0.91	1.13	0.68
29	0.66	2.46	1.61	0.88	0.0	0.39	0.81	3.19	0.98	0.96	1.08	0.66
30	0.65	2.44	1.57	0.87	0.0	0.38	0.75	3.02	0.95	0.92	1.04	0.72
31	0.63	0.0	1.53	0.86	0.0	0.38	0.0	2.87	0.0	0.89	1.01	0.0
TOT	27.54	57.40	76.02	34.98	19.46	14.33	24.73	119.75	49.73	22.79	26.67	24.67

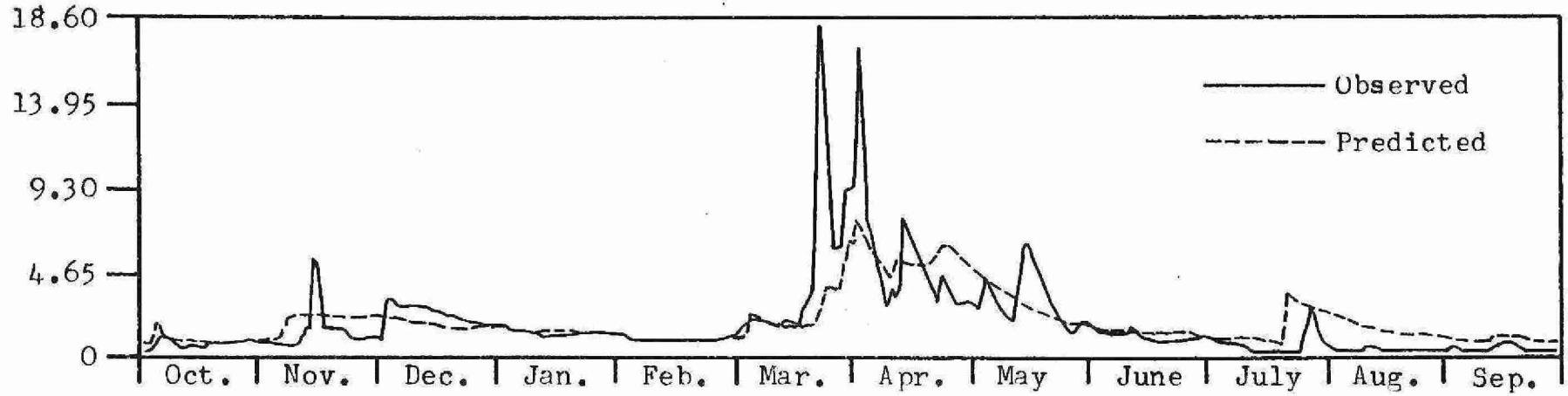
TOTAL FOR WATER YEAR = 498.06



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - BAKER CREEK

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.70	0.64	2.45	1.37	0.87	0.60	6.18	4.77	1.28	0.86	2.68	0.94
2	0.68	0.68	2.39	1.34	0.86	0.59	7.96	4.51	1.23	0.83	2.55	1.01
3	1.32	0.72	2.34	1.32	0.85	1.14	7.26	4.38	1.18	0.81	2.43	0.98
4	1.22	0.77	2.28	1.30	0.84	2.48	6.83	4.13	1.13	0.78	2.33	0.95
5	1.18	0.81	2.23	1.28	0.83	2.78	6.42	3.90	1.09	0.76	2.22	0.92
6	1.15	0.85	2.19	1.26	0.82	2.58	6.04	3.69	1.05	0.74	2.11	0.89
7	1.11	0.89	2.14	1.25	0.80	2.45	5.68	3.49	1.01	0.72	2.10	0.87
8	1.07	0.93	2.10	1.23	0.79	2.33	5.35	3.30	0.99	0.70	2.00	0.85
9	1.03	0.98	2.05	1.21	0.78	2.22	5.03	3.13	0.96	0.69	2.02	0.83
10	1.00	1.02	2.01	1.19	0.77	2.11	4.73	2.96	1.22	0.67	1.95	0.81
11	0.97	1.06	1.97	1.17	0.76	2.01	4.45	2.80	1.15	0.65	1.87	0.79
12	0.94	1.10	1.93	1.16	0.75	1.92	4.20	2.85	1.11	0.64	1.78	0.78
13	0.91	2.21	1.90	1.14	0.74	1.83	5.33	2.69	1.07	0.63	1.71	1.08
14	0.89	2.16	1.86	1.12	0.73	1.74	5.30	2.58	1.03	0.61	1.63	1.05
15	0.86	2.15	1.82	1.11	0.72	1.66	5.26	2.45	0.99	0.60	1.57	1.02
16	0.84	2.14	1.79	1.09	0.71	1.59	4.99	2.33	0.96	0.59	1.50	0.99
17	0.82	2.66	1.76	1.08	0.70	1.52	4.76	2.21	0.92	0.58	1.44	0.96
18	0.82	2.63	1.73	1.06	0.69	1.45	4.51	2.10	0.89	0.57	1.39	0.93
19	0.80	2.61	1.70	1.05	0.68	1.39	4.26	2.00	0.87	0.56	1.33	0.90
20	0.78	2.58	1.67	1.03	0.68	1.49	4.07	1.90	0.84	0.55	1.28	0.88
21	0.76	2.56	1.64	1.02	0.67	1.65	4.62	1.81	0.83	0.54	1.24	0.86
22	0.74	2.55	1.61	1.00	0.66	1.76	4.48	1.73	0.80	0.53	1.19	0.84
23	0.73	2.53	1.58	0.99	0.65	2.06	4.29	1.65	0.78	0.52	1.28	0.82
24	0.71	2.51	1.56	0.97	0.64	4.02	5.28	1.57	0.76	4.26	1.22	0.80
25	0.74	2.50	1.53	0.96	0.63	4.37	6.72	1.54	0.74	3.88	1.18	0.78
26	0.72	2.49	1.50	0.95	0.62	4.04	6.64	1.65	0.72	3.66	1.14	0.76
27	0.71	2.48	1.48	0.93	0.62	3.82	6.20	1.57	0.70	3.47	1.10	0.74
28	0.69	2.47	1.46	0.92	0.61	3.61	5.81	1.50	0.68	3.29	1.06	0.73
29	0.68	2.46	1.43	0.91	0.0	4.80	5.44	1.46	0.67	3.12	1.03	0.72
30	0.66	2.45	1.41	0.90	0.0	6.13	5.11	1.39	0.91	2.96	1.00	0.70
31	0.65	0.0	1.39	0.88	0.0	6.69	0.0	1.33	0.0	2.81	0.97	0.0
TOT	26.88	54.59	56.88	34.20	20.49	78.84	163.23	79.34	28.53	42.57	50.30	26.16

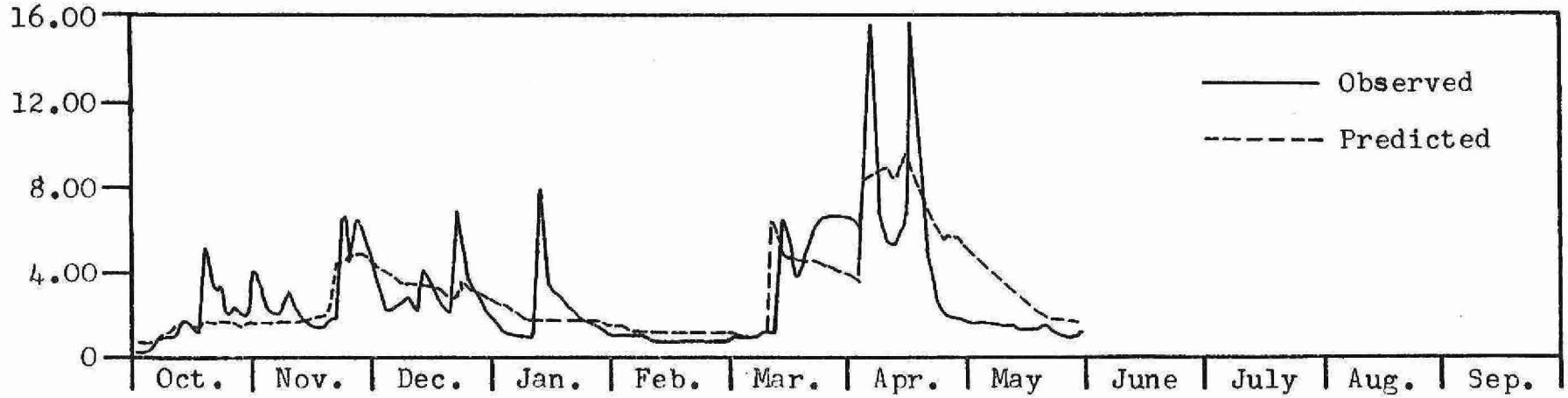
TOTAL FOR WATER YEAR = 662.00



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - BAKER CREEK

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.69	1.59	4.79	2.62	1.29	0.82	3.84	4.56	1.52	1.90	2.95	2.65
2	0.68	1.55	4.62	2.54	1.27	0.81	3.72	4.31	1.45	1.82	2.82	2.46
3	0.67	1.57	4.46	2.47	1.25	0.80	3.52	4.07	1.39	1.74	2.68	2.36
4	0.87	1.59	4.31	2.40	1.22	0.79	3.32	3.85	1.34	1.67	2.56	2.26
5	1.07	1.60	4.17	2.33	1.20	0.77	3.17	3.65	1.28	1.60	2.45	2.16
6	1.10	1.62	4.03	2.27	1.18	0.76	3.01	3.45	1.32	1.53	2.34	2.07
7	1.06	1.64	3.90	2.21	1.16	0.75	4.38	3.28	1.26	1.49	2.24	1.99
8	1.22	1.66	3.78	2.15	1.15	0.74	7.63	3.11	1.21	1.46	2.15	1.91
9	1.16	1.69	3.66	2.10	1.13	0.73	8.72	2.94	1.17	1.40	2.06	1.85
10	1.12	1.71	3.55	2.05	1.11	0.72	8.52	2.79	1.13	1.35	1.97	1.78
11	1.09	1.74	3.45	2.00	1.09	0.71	8.19	2.65	1.09	1.30	1.89	1.71
12	1.32	1.76	3.35	1.95	1.07	0.70	8.60	2.51	1.05	1.25	1.82	1.65
13	1.26	1.79	3.25	1.90	1.06	0.69	8.09	2.39	1.01	1.21	1.75	1.62
14	1.21	1.82	3.16	1.86	1.04	0.68	9.17	2.27	0.98	1.17	1.68	1.57
15	1.17	1.84	3.07	1.82	1.02	0.67	8.55	2.16	0.95	1.13	1.62	1.51
16	1.13	1.87	2.99	1.78	1.01	0.66	8.04	2.05	0.92	2.36	1.56	1.46
17	1.10	1.91	2.91	1.74	0.99	0.66	7.56	1.96	0.89	2.14	1.50	1.46
18	1.06	1.95	2.83	1.70	0.98	0.65	7.13	1.88	0.86	2.04	1.45	1.41
19	1.30	1.98	2.76	1.66	0.96	0.64	6.72	1.79	2.89	1.95	1.40	1.36
20	1.51	2.18	2.69	1.63	0.95	1.47	6.48	1.71	2.56	2.00	1.35	1.32
21	1.43	2.52	2.62	1.59	0.93	6.30	6.12	1.63	2.44	1.90	1.31	1.28
22	1.38	4.10	2.56	1.56	0.92	5.28	5.79	1.56	2.32	1.86	1.27	1.76
23	1.40	4.62	3.64	1.53	0.91	4.99	5.48	1.49	2.21	1.78	1.24	1.66
24	1.34	4.51	3.37	1.50	0.89	4.71	5.19	1.43	2.11	1.71	1.20	1.60
25	1.29	4.42	3.26	1.47	0.88	4.45	5.53	1.37	2.01	1.64	1.17	1.56
26	1.25	5.25	3.16	1.44	0.87	4.44	5.20	1.31	1.92	2.00	1.14	1.50
27	1.21	5.26	3.05	1.42	0.86	4.19	5.53	1.26	1.83	1.88	1.11	1.45
28	1.17	5.14	2.96	1.39	0.84	4.20	5.55	1.20	1.75	3.82	1.10	1.41
29	1.13	5.01	2.87	1.36	0.83	4.12	5.17	1.16	2.12	3.43	1.07	1.37
30	1.09	4.90	2.78	1.34	0.0	4.00	4.83	1.53	1.99	3.26	1.90	1.32
31	1.07	0.0	2.69	1.31	0.0	4.04	0.0	1.60	0.0	3.10	1.81	0.0
TOT	35.55	80.79	104.71	57.08	30.07	65.97	182.76	72.91	46.98	58.89	54.55	51.49

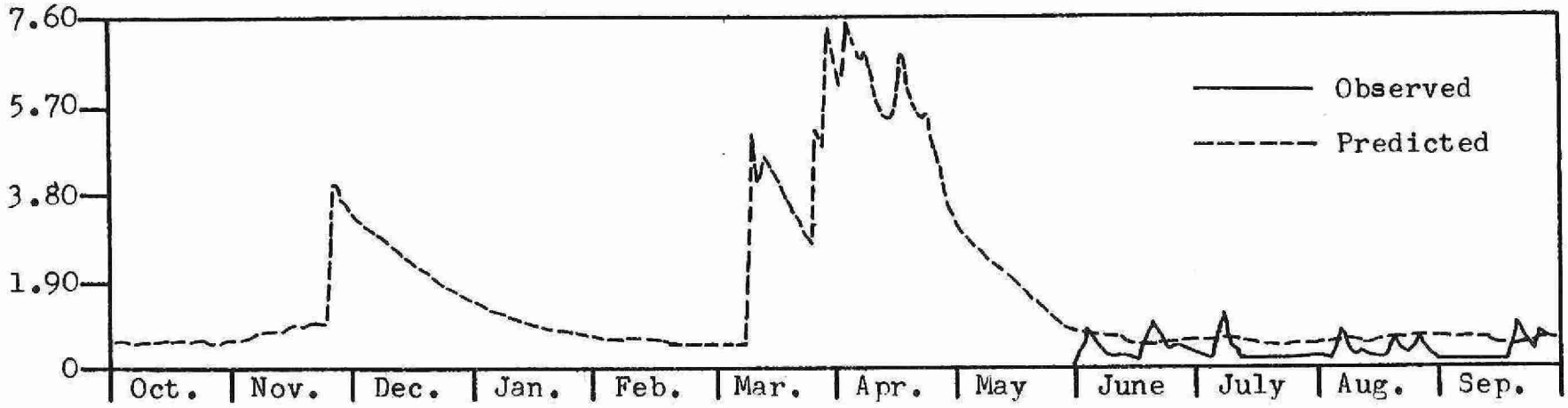
TOTAL FOR WATER YEAR = 841.75



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR : APIOS - DUCK

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.56	0.54	3.22	1.29	0.69	0.45	6.30	2.83	0.78	0.52	0.40	0.46
2	0.55	0.57	3.11	1.26	0.68	0.44	7.55	2.70	0.75	0.51	0.39	0.45
3	0.53	0.60	3.01	1.23	0.67	0.44	6.84	2.58	0.72	0.49	0.39	0.44
4	0.52	0.63	2.90	1.20	0.66	0.43	6.48	2.46	0.70	0.48	0.58	0.43
5	0.51	0.65	2.81	1.18	0.65	0.42	6.75	2.35	0.68	0.51	0.55	0.42
6	0.55	0.70	2.71	1.15	0.64	0.42	6.31	2.24	0.65	0.66	0.53	0.41
7	0.53	0.72	2.62	1.12	0.63	0.41	5.99	2.14	0.63	0.60	0.51	0.40
8	0.52	0.74	2.54	1.10	0.62	0.41	5.69	2.04	0.61	0.58	0.50	0.40
9	0.51	0.77	2.46	1.08	0.61	0.40	5.40	1.95	0.59	0.56	0.49	0.44
10	0.50	0.80	2.38	1.05	0.60	0.39	5.15	1.86	0.57	0.55	0.49	0.42
11	0.49	0.82	2.31	1.03	0.59	0.73	5.28	1.78	0.56	0.53	0.47	0.41
12	0.48	0.85	2.23	1.01	0.58	3.50	5.31	1.70	0.54	0.52	0.46	0.40
13	0.48	0.87	2.17	0.99	0.57	4.79	6.75	1.63	0.53	0.50	0.45	0.39
14	0.47	0.90	2.10	0.97	0.56	4.04	6.09	1.56	0.51	0.49	0.44	0.39
15	0.48	0.92	2.04	0.95	0.55	4.74	5.82	1.49	0.50	0.48	0.43	0.38
16	0.46	0.94	1.98	0.93	0.54	4.26	5.58	1.43	0.48	0.47	0.68	0.38
17	0.46	0.97	1.92	0.91	0.54	4.06	5.43	1.37	0.47	0.46	0.60	0.38
18	0.45	0.99	1.87	0.89	0.53	3.87	5.25	1.31	0.50	0.44	0.58	0.37
19	0.44	1.01	1.81	0.88	0.52	3.68	5.21	1.26	0.48	0.43	0.57	0.36
20	0.44	1.03	1.76	0.86	0.51	3.51	5.21	1.20	0.53	0.42	0.55	0.62
21	0.58	1.05	1.71	0.84	0.50	3.35	4.96	1.16	0.50	0.42	0.62	0.54
22	0.53	1.07	1.67	0.83	0.50	3.20	4.69	1.11	0.49	0.41	0.58	0.52
23	0.52	1.09	1.62	0.81	0.49	3.05	4.44	1.06	0.47	0.40	0.57	0.51
24	0.51	1.11	1.58	0.80	0.48	2.91	4.21	1.02	0.46	0.40	0.55	0.51
25	0.50	1.13	1.54	0.78	0.48	2.78	3.98	0.98	0.46	0.39	0.54	0.50
26	0.49	2.45	1.50	0.77	0.47	2.65	3.77	0.95	0.44	0.38	0.52	0.58
27	0.48	4.12	1.46	0.76	0.46	2.53	3.56	0.91	0.43	0.37	0.51	0.55
28	0.47	3.48	1.42	0.74	0.46	4.77	3.37	0.88	0.60	0.37	0.50	0.53
29	0.47	3.39	1.39	0.73	0.0	4.74	3.18	0.84	0.54	0.36	0.49	0.53
30	0.60	3.30	1.36	0.72	0.0	7.32	3.00	0.81	0.54	0.36	0.48	0.51
31	0.56	0.0	1.32	0.71	0.0	6.86	0.0	0.79	0.0	0.43	0.47	0.0
TOT	15.62	38.23	64.53	29.57	15.77	85.53	157.55	48.38	16.73	14.49	15.88	13.62

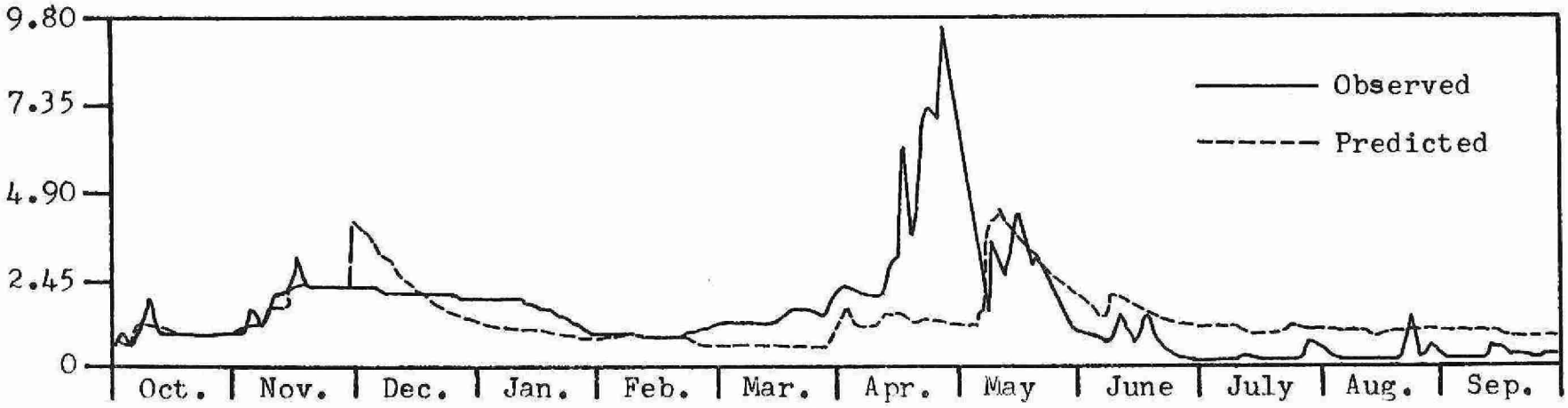
TOTAL FOR WATER YEAR = 515.90



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - DUCK

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.74	0.54	4.02	1.38	0.74	0.48	1.49	1.05	1.71	0.90	0.80	0.87
2	0.66	0.56	3.30	1.35	0.73	0.47	1.23	1.01	1.65	0.88	0.98	0.85
3	0.64	0.72	3.19	1.32	0.72	0.47	1.18	0.98	1.58	0.85	0.90	0.83
4	0.62	0.71	3.08	1.29	0.71	0.46	1.12	0.93	1.55	0.83	0.88	0.81
5	0.61	0.72	2.98	1.26	0.70	0.45	1.08	0.95	1.49	0.81	0.85	0.79
6	0.59	0.75	2.88	1.23	0.68	0.45	1.03	1.62	1.43	0.79	0.83	0.77
7	0.58	0.84	2.79	1.20	0.67	0.44	1.07	1.44	1.38	0.81	0.81	0.76
8	1.25	0.84	2.70	1.18	0.66	0.44	1.01	2.56	1.34	0.81	0.79	0.75
9	1.03	0.86	2.61	1.15	0.65	0.43	0.96	3.87	1.29	0.78	0.77	0.77
10	1.00	1.60	2.53	1.13	0.64	0.42	0.92	3.91	1.24	0.76	0.75	0.74
11	0.98	1.44	2.45	1.10	0.63	0.42	1.48	4.48	1.20	0.74	0.74	0.73
12	0.95	1.44	2.38	1.08	0.62	0.41	1.44	4.06	1.93	0.73	0.72	0.75
13	0.92	1.44	2.30	1.06	0.61	0.41	1.47	3.93	1.66	0.71	0.70	0.72
14	0.89	1.44	2.24	1.04	0.60	0.40	1.38	3.78	1.60	0.69	0.69	0.73
15	0.88	1.44	2.17	1.02	0.59	0.39	1.31	3.59	1.54	0.68	0.67	0.71
16	0.85	2.43	2.11	1.00	0.58	0.39	1.25	3.43	1.48	0.67	0.67	0.70
17	0.82	2.21	2.05	0.98	0.58	0.38	1.18	3.28	1.43	0.65	0.66	0.69
18	0.79	2.18	1.99	0.96	0.57	0.38	1.21	3.13	1.38	0.64	0.83	0.70
19	0.77	2.16	1.93	0.94	0.56	0.37	1.45	2.99	1.33	0.63	0.79	0.68
20	0.75	2.14	1.88	0.92	0.55	0.37	1.84	2.86	1.28	0.62	0.77	0.67
21	0.72	2.31	1.83	0.90	0.54	0.36	1.65	2.74	1.24	0.60	0.75	0.66
22	0.70	2.26	1.78	0.89	0.53	0.36	1.56	2.62	1.20	0.59	0.73	0.64
23	0.68	2.24	1.73	0.87	0.53	0.35	1.49	2.50	1.16	0.58	0.99	0.63
24	0.66	2.22	1.69	0.86	0.52	0.35	1.42	2.40	1.12	0.57	1.02	0.62
25	0.65	2.20	1.64	0.84	0.51	0.34	1.39	2.30	1.08	0.56	0.96	0.61
26	0.63	2.18	1.60	0.82	0.50	0.34	1.34	2.20	1.05	0.92	0.93	0.60
27	0.61	2.17	1.56	0.81	0.50	0.33	1.30	2.11	1.02	0.80	0.91	0.62
28	0.60	2.15	1.52	0.80	0.49	0.33	1.26	2.02	0.99	0.78	1.01	0.60
29	0.58	2.13	1.48	0.78	0.0	0.33	1.19	1.94	0.96	0.90	0.95	0.59
30	0.57	2.12	1.45	0.77	0.0	0.32	1.12	1.86	0.93	0.84	0.92	0.66
31	0.55	0.0	1.41	0.76	0.0	1.07	0.0	1.79	0.0	0.82	0.90	0.0
TOT	23.27	48.42	69.27	31.64	16.91	12.93	38.82	78.30	40.21	22.96	25.66	21.27

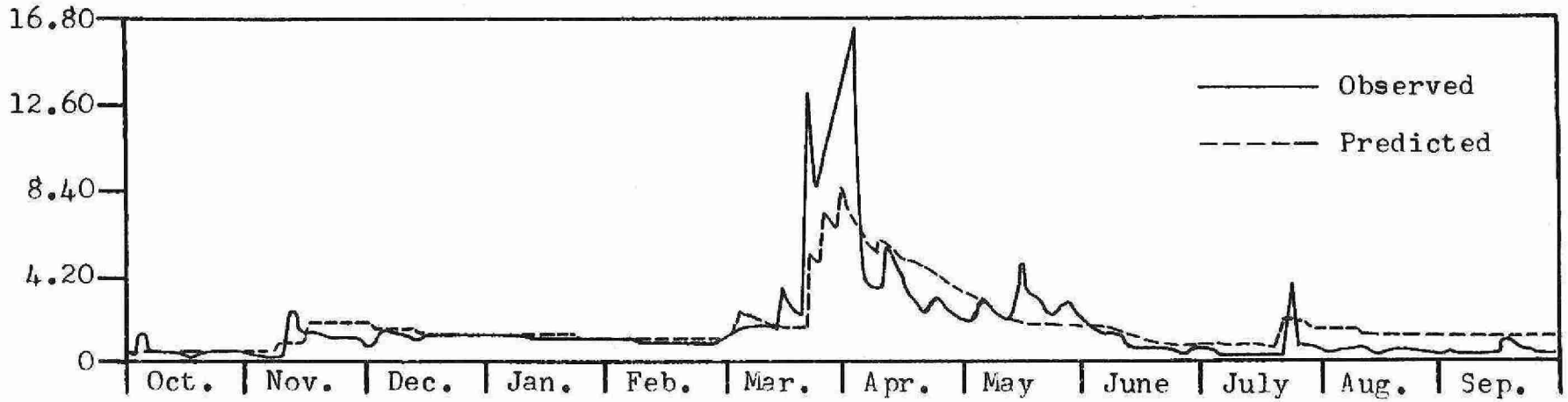
TOTAL FOR WATER YEAR = 429.66



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIUS - DUCK

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.63	0.51	2.20	1.23	0.77	0.53	6.49	3.40	1.16	0.81	1.52	0.72
2	0.62	0.55	2.15	1.21	0.76	0.52	8.74	3.24	1.12	0.78	1.45	0.74
3	0.86	0.59	2.11	1.19	0.75	1.29	7.59	3.20	1.08	0.76	1.40	0.72
4	0.78	0.63	2.06	1.17	0.74	2.48	7.20	3.02	1.04	0.74	1.35	0.70
5	0.77	0.67	2.02	1.15	0.73	2.60	6.84	2.88	1.00	0.72	1.30	0.68
6	0.75	0.71	1.98	1.13	0.72	2.31	6.49	2.75	0.97	0.70	1.25	0.67
7	0.74	0.75	1.94	1.12	0.71	2.21	6.17	2.62	0.93	0.68	1.28	0.65
8	0.72	0.79	1.90	1.10	0.70	2.12	5.85	2.50	0.91	0.66	1.22	0.64
9	0.70	0.82	1.86	1.08	0.69	2.03	5.56	2.39	0.87	0.64	1.30	0.63
10	0.69	0.86	1.82	1.07	0.68	1.95	5.28	2.28	1.15	0.62	1.24	0.62
11	0.68	0.90	1.79	1.05	0.67	1.87	5.01	2.18	1.03	0.61	1.19	0.61
12	0.66	0.94	1.75	1.03	0.66	1.79	4.76	2.37	0.99	0.59	1.15	0.60
13	0.65	0.97	1.72	1.02	0.65	1.72	6.02	2.19	0.96	0.58	1.11	0.74
14	0.64	1.05	1.69	1.00	0.65	1.65	5.78	2.13	0.93	0.57	1.08	0.72
15	0.63	1.08	1.65	0.99	0.64	1.59	5.77	2.03	0.90	0.55	1.04	0.70
16	0.62	1.11	1.62	0.97	0.63	1.52	5.48	1.94	0.87	0.54	1.01	0.68
17	0.61	2.30	1.59	0.96	0.62	1.46	5.26	1.86	0.84	0.53	0.99	0.67
18	0.60	2.35	1.56	0.95	0.61	1.41	5.01	1.78	0.81	0.52	0.96	0.65
19	0.59	2.29	1.54	0.93	0.60	1.35	4.78	1.70	0.79	0.51	0.93	0.64
20	0.58	2.28	1.51	0.92	0.60	1.47	4.60	1.63	0.76	0.50	0.90	0.63
21	0.57	2.27	1.48	0.90	0.59	1.63	5.30	1.57	0.80	0.49	0.87	0.61
22	0.57	2.26	1.46	0.89	0.58	1.73	5.02	1.50	0.77	0.48	0.85	0.60
23	0.56	2.25	1.43	0.88	0.57	3.18	4.81	1.44	0.74	0.47	0.95	0.59
24	0.55	2.24	1.41	0.87	0.56	5.17	4.98	1.38	0.72	1.99	0.89	0.58
25	0.55	2.23	1.38	0.85	0.56	4.85	4.63	1.37	0.70	2.12	0.87	0.57
26	0.54	2.23	1.36	0.84	0.55	4.43	4.55	1.53	0.68	1.88	0.84	0.56
27	0.54	2.22	1.34	0.83	0.54	4.22	4.26	1.42	0.66	1.80	0.82	0.55
28	0.53	2.22	1.31	0.82	0.53	4.02	4.03	1.36	0.64	1.73	0.80	0.54
29	0.52	2.21	1.29	0.81	0.0	5.41	3.81	1.31	0.63	1.66	0.78	0.53
30	0.52	2.21	1.27	0.80	0.0	6.71	3.61	1.26	0.91	1.60	0.76	0.53
31	0.51	0.0	1.25	0.78	0.0	7.28	0.0	1.21	0.0	1.54	0.74	0.0
TOT	19.48	44.45	51.42	30.55	18.08	82.53	163.68	63.46	26.35	28.37	32.84	19.07

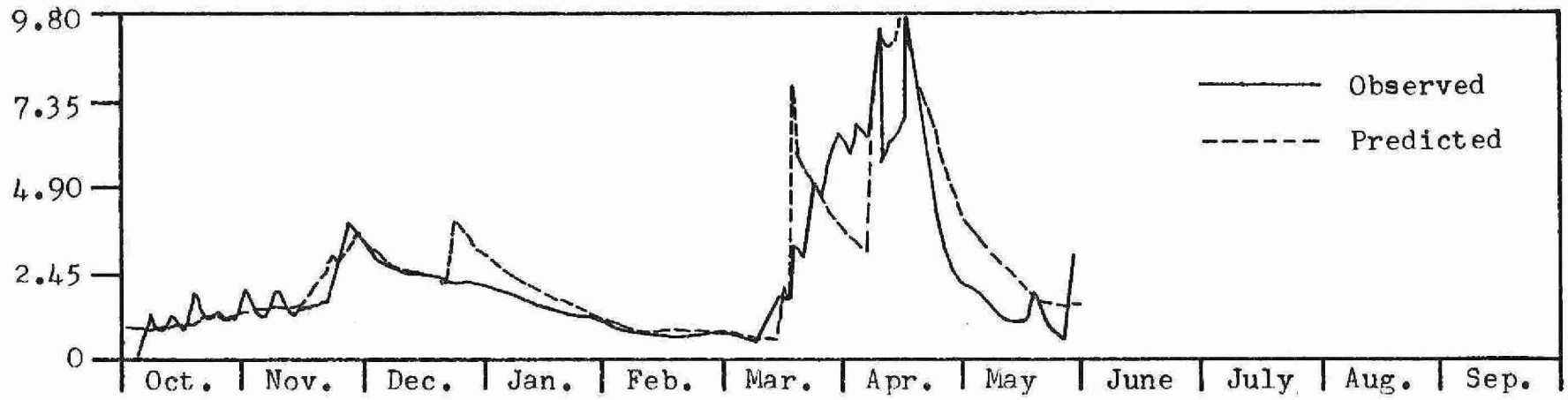
TOTAL FOR WATER YEAR = 580.29



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - DUCK

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.52	1.08	3.41	3.05	1.28	0.73	4.32	3.88	1.42	1.45	1.79	1.46
2	0.51	1.05	3.32	2.95	1.25	0.72	4.23	3.70	1.37	1.40	1.72	1.34
3	0.50	1.07	3.23	2.85	1.22	0.71	4.01	3.53	1.31	1.35	1.66	1.30
4	0.73	1.11	3.14	2.76	1.20	0.70	3.81	3.37	1.27	1.30	1.60	1.26
5	0.83	1.13	3.06	2.67	1.17	0.68	3.68	3.21	1.22	1.26	1.56	1.22
6	0.84	1.15	2.98	2.59	1.15	0.67	3.52	3.07	1.26	1.21	1.50	1.18
7	0.80	1.18	2.90	2.51	1.12	0.66	5.19	2.93	1.19	1.18	1.61	1.15
8	0.96	1.20	2.83	2.43	1.10	0.65	8.33	2.80	1.15	1.33	1.51	1.12
9	0.89	1.23	2.76	2.36	1.08	0.64	9.29	2.67	1.11	1.24	1.46	1.09
10	0.86	1.26	2.69	2.29	1.06	0.63	8.70	2.55	1.07	1.20	1.41	1.06
11	0.88	1.28	2.62	2.22	1.03	0.62	8.48	2.44	1.03	1.16	1.37	1.04
12	0.94	1.31	2.56	2.15	1.01	0.61	9.02	2.33	1.00	1.12	1.32	1.01
13	0.89	1.34	2.50	2.09	0.99	0.60	8.39	2.23	0.97	1.08	1.28	1.05
14	0.86	1.36	2.44	2.03	0.97	0.59	9.67	2.13	0.93	1.07	1.24	1.01
15	0.84	1.39	2.39	1.97	0.96	0.58	8.96	2.04	0.90	1.03	1.20	0.98
16	0.82	1.42	2.33	1.92	0.94	0.58	8.48	1.95	0.88	1.87	1.17	0.96
17	0.80	1.45	2.28	1.87	0.92	1.87	8.04	1.87	0.85	1.57	1.13	0.97
18	0.78	1.50	2.23	1.82	0.90	1.41	7.69	1.80	0.82	1.52	1.10	0.94
19	1.07	1.84	2.18	1.77	0.89	1.36	7.32	1.73	2.45	1.46	1.07	0.92
20	1.16	2.00	2.13	1.72	0.87	3.01	7.11	1.66	1.91	1.56	1.04	0.89
21	1.08	2.18	2.09	1.68	0.85	7.54	6.73	1.59	1.83	1.47	1.01	0.88
22	1.04	2.57	2.04	1.63	0.84	5.60	6.38	1.52	1.76	1.42	0.99	1.23
23	1.07	3.05	3.20	1.59	0.82	5.33	6.04	1.46	1.69	1.37	0.96	1.10
24	1.03	2.93	4.65	1.55	0.81	5.08	5.72	1.40	1.63	1.32	0.94	1.07
25	1.00	3.26	3.90	1.51	0.80	4.84	5.41	1.35	1.56	1.28	0.92	1.05
26	0.97	3.43	3.76	1.48	0.78	4.80	5.12	1.30	1.51	1.43	0.90	1.02
27	0.94	3.63	3.63	1.44	0.77	4.53	4.84	1.25	1.45	1.34	0.87	0.99
28	0.98	3.54	3.50	1.41	0.76	4.68	4.58	1.20	1.40	2.38	0.86	0.97
29	0.94	3.49	3.38	1.37	0.74	4.60	4.32	1.17	1.65	2.00	0.84	0.95
30	0.91	3.45	3.27	1.34	0.0	4.46	4.08	1.63	1.51	1.93	1.34	0.92
31	0.89	0.0	3.16	1.31	0.0	4.57	0.0	1.49	0.0	1.86	1.19	0.0
TOT	27.34	57.90	90.55	62.33	28.30	74.07	191.45	67.25	40.09	44.16	38.56	32.12

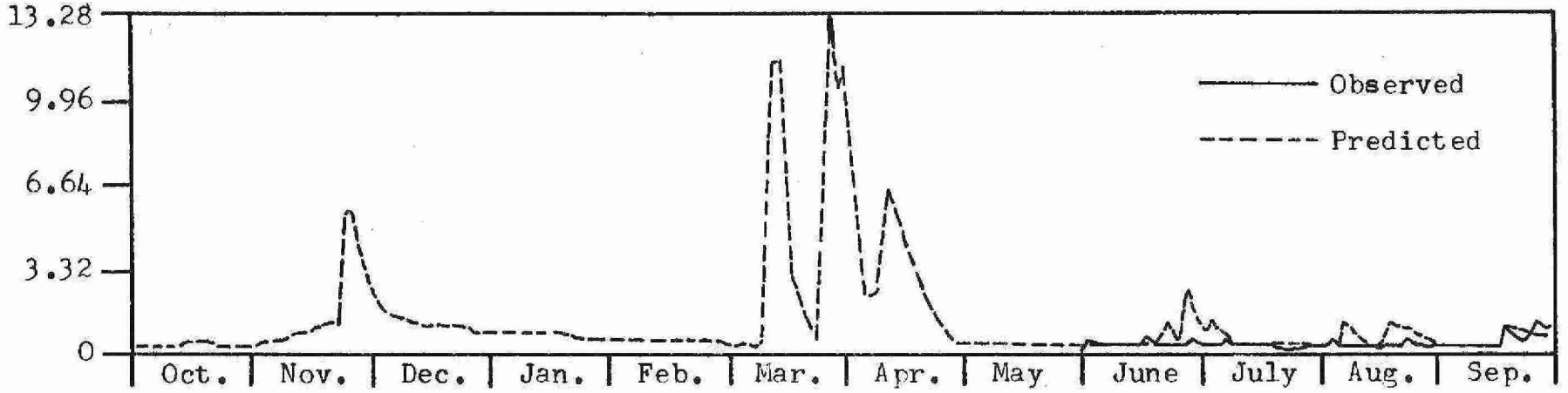
TOTAL FOR WATER YEAR = 754.12



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR 1 APIOS - HALIBURTON

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.35	0.32	0.52	0.84	0.56	0.39	10.71	0.35	0.21	1.63	0.45	0.34
2	0.35	0.35	0.50	0.83	0.55	0.38	11.61	0.34	0.21	1.54	0.41	0.33
3	0.38	0.40	0.63	0.82	0.55	0.38	11.09	0.33	0.20	1.44	0.37	0.32
4	0.43	0.43	0.87	0.81	0.54	0.37	8.90	0.32	0.20	0.98	0.98	0.31
5	0.45	0.46	0.87	0.80	0.53	0.37	7.11	0.32	0.20	0.93	1.19	0.31
6	0.49	0.49	0.87	0.79	0.53	0.36	5.69	0.31	0.20	0.93	1.00	0.30
7	0.52	0.52	1.58	0.78	0.52	0.36	4.57	0.31	0.20	0.88	0.84	0.30
8	0.54	0.54	1.48	0.77	0.52	0.35	3.68	0.30	0.20	0.90	0.72	0.29
9	0.54	0.54	1.39	0.76	0.51	0.35	2.98	0.30	0.19	0.77	0.68	0.29
10	0.57	0.57	1.32	0.75	0.51	0.34	2.43	0.29	0.19	0.66	0.63	0.28
11	0.60	0.60	1.26	0.74	0.50	0.34	2.01	0.29	0.19	0.58	0.55	0.28
12	0.63	0.63	1.21	0.73	0.50	0.33	1.69	0.28	0.19	0.51	0.49	0.27
13	0.68	0.68	1.17	0.72	0.49	0.33	1.44	0.28	0.19	0.46	0.44	0.27
14	0.70	0.70	1.13	0.71	0.49	0.32	1.24	0.27	0.19	0.41	0.41	0.26
15	0.74	0.74	1.10	0.70	0.48	0.32	1.08	0.27	0.19	0.38	0.38	0.26
16	0.76	0.76	1.07	0.69	0.48	0.31	0.95	0.26	0.19	0.34	0.37	0.25
17	0.78	0.78	1.05	0.68	0.47	0.31	0.84	0.26	0.19	0.31	0.34	0.25
18	0.97	0.97	1.03	0.67	0.47	0.30	0.75	0.25	0.19	0.29	0.31	0.24
19	1.06	1.06	1.01	0.66	0.46	0.30	0.67	0.25	0.19	0.27	0.29	0.24
20	1.04	1.04	0.99	0.66	0.46	0.29	0.61	0.24	0.19	0.25	0.27	0.23
21	1.02	1.02	0.97	0.65	0.45	0.29	0.56	0.24	0.18	0.24	0.25	0.23
22	1.01	1.01	0.96	0.64	0.45	0.28	0.51	0.23	0.18	0.22	0.24	0.22
23	1.01	1.01	0.94	0.63	0.45	0.28	0.47	0.23	0.18	0.21	0.22	0.22
24	0.44	0.93	0.93	0.62	0.44	0.27	0.44	0.22	0.18	0.20	0.21	0.21
25	0.41	0.92	0.92	0.61	0.44	0.27	0.40	0.22	0.18	0.19	0.20	0.21
26	0.38	0.90	0.90	0.60	0.44	0.26	0.37	0.21	0.18	0.18	0.19	0.20
27	0.36	0.89	0.89	0.59	0.43	0.26	0.34	0.21	0.18	0.17	0.18	0.20
28	0.35	0.88	0.88	0.58	0.0	0.25	0.32	0.21	0.18	0.16	0.17	0.19
29	0.34	0.87	0.87	0.58	0.0	0.25	0.30	0.20	0.18	0.16	0.16	0.19
30	0.34	0.87	0.87	0.58	0.0	0.24	0.28	0.20	0.18	0.15	0.16	0.18
31	0.33	0.0	0.85	0.57	0.0	0.24	0.0	0.20	0.0	0.15	0.15	0.0
TOT	11.14	39.44	43.08	21.59	13.24	128.89	118.94	7.01	15.63	18.17	20.61	14.02

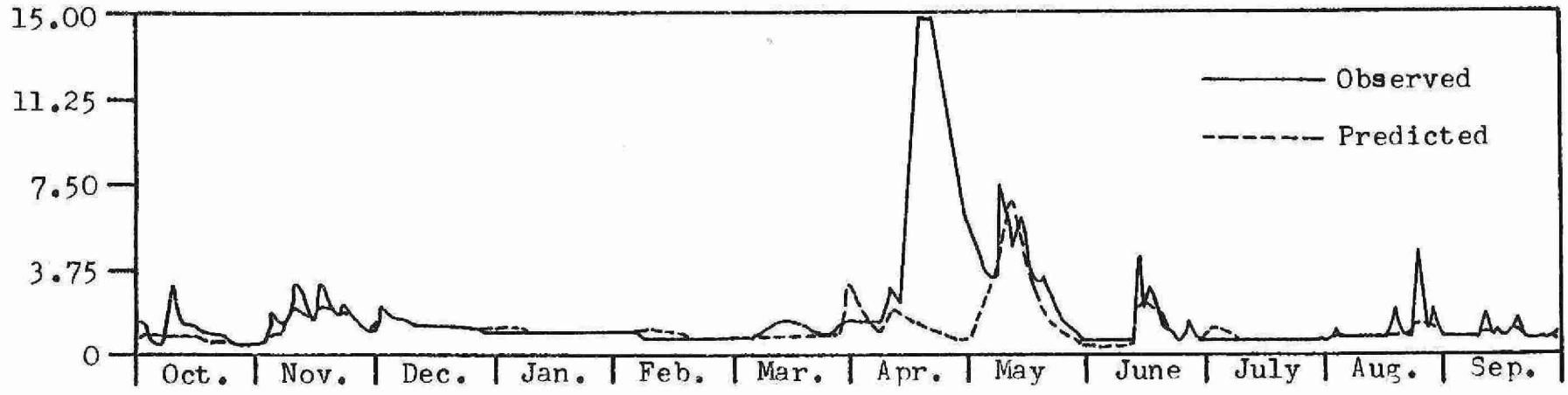
TOTAL FOR WATER YEAR = 451.73



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - HALIBURTON

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.70	0.30	1.68	0.86	0.57	0.40	3.12	0.32	0.38	0.38	0.48	0.65
2	0.76	0.33	1.78	0.85	0.57	0.39	2.19	0.28	0.37	0.37	0.96	0.58
3	0.67	0.44	1.66	0.84	0.56	0.38	1.57	0.27	0.36	0.36	1.13	0.48
4	0.59	0.50	1.56	0.83	0.55	0.38	1.08	0.26	0.36	0.36	0.96	0.47
5	0.53	0.51	1.47	0.82	0.55	0.38	0.71	0.25	0.35	0.35	0.83	0.45
6	0.48	0.55	1.40	0.80	0.54	0.37	0.41	0.24	0.35	0.35	0.75	0.45
7	0.44	0.59	1.35	0.79	0.54	0.37	0.16	0.24	0.34	0.34	0.65	0.43
8	0.90	0.63	1.30	0.78	0.53	0.36	0.96	0.23	0.34	0.34	0.59	0.42
9	1.07	0.64	1.26	0.77	0.53	0.36	0.80	5.77	0.33	0.94	0.54	0.41
10	0.91	1.64	1.22	0.76	0.52	0.35	0.67	6.65	0.33	0.81	0.50	0.98
11	0.80	2.06	1.19	0.75	0.50	0.35	0.73	7.02	0.32	0.72	0.47	0.90
12	0.71	1.80	1.16	0.74	0.50	0.34	2.16	6.31	0.32	0.64	0.44	0.81
13	0.63	1.60	1.14	0.73	0.49	0.34	1.76	4.14	0.31	0.58	0.42	0.74
14	0.56	1.45	1.12	0.73	0.48	0.33	1.44	3.49	0.31	0.53	0.39	0.68
15	0.51	1.33	1.08	0.72	0.48	0.33	1.18	2.99	0.30	0.49	0.40	0.62
16	0.55	1.98	1.06	0.71	0.47	0.32	0.98	2.75	0.30	0.46	0.39	0.57
17	0.58	2.33	1.04	0.70	0.46	0.32	0.81	2.52	0.29	0.44	0.39	0.53
18	0.56	1.98	1.03	0.69	0.46	0.32	0.80	2.90	0.29	0.42	0.61	0.50
19	0.43	1.79	1.01	0.68	0.45	0.31	1.03	3.61	0.28	0.40	0.70	0.47
20	0.38	1.64	1.00	0.67	0.45	0.31	1.04	3.46	0.28	0.39	0.66	0.44
21	0.77	1.77	0.98	0.66	0.44	0.31	0.85	3.14	0.28	0.38	0.57	0.42
22	0.80	1.80	0.97	0.65	0.44	0.30	0.71	2.96	0.27	0.37	0.53	0.40
23	0.67	1.67	0.96	0.64	0.44	0.30	0.60	2.83	0.27	0.36	0.49	0.39
24	0.58	1.58	0.94	0.64	0.44	0.30	0.55	2.72	0.27	0.36	0.49	0.38
25	0.51	1.51	0.93	0.63	0.44	0.29	0.50	2.44	0.26	0.35	0.31	0.37
26	0.45	1.45	0.92	0.62	0.44	0.29	0.56	2.47	0.26	0.35	0.22	0.36
27	0.42	1.42	0.91	0.61	0.44	0.29	0.53	2.38	0.26	0.34	0.00	0.46
28	0.39	1.39	0.91	0.60	0.44	0.28	0.46	2.45	0.25	0.34	0.91	0.44
29	0.37	1.37	0.89	0.60	0.00	0.28	0.38	2.42	0.25	0.57	0.79	0.48
30	0.34	1.36	0.88	0.59	0.00	1.27	0.00	0.40	0.00	0.52	0.70	0.00
31	0.30	0.00	0.87	0.58	0.00	1.50	0.00	0.40	0.00	0.52	0.70	0.00
TOT	16.28	39.27	35.86	22.04	13.51	11.42	36.27	63.14	21.90	16.18	21.75	17.32

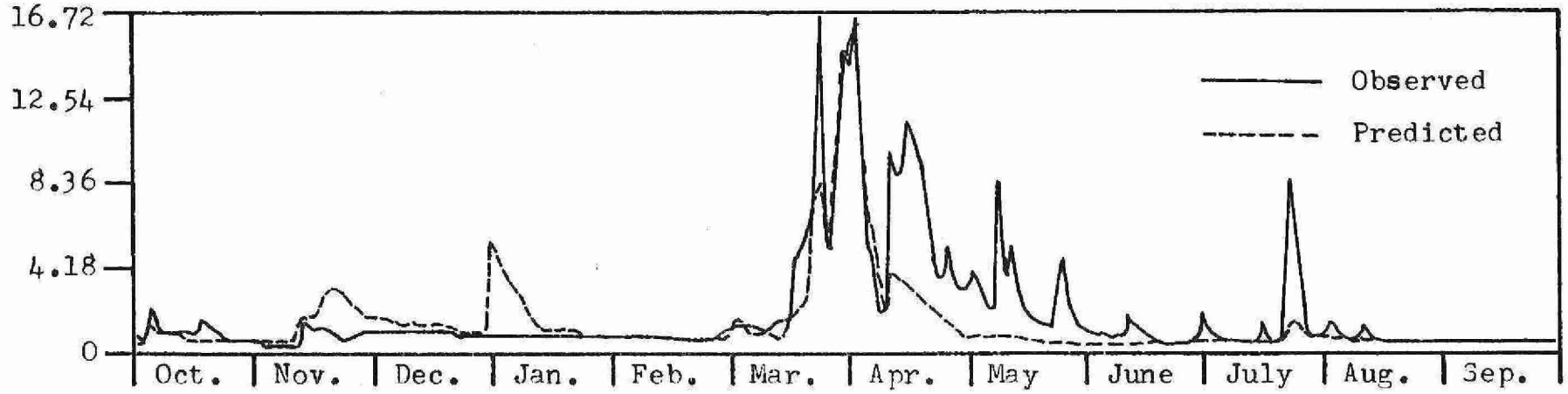
TOTAL FOR WATER YEAR = 314.93



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR : APIOS - HALIBURTON

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.49	0.38	1.62	5.85	0.69	1.26	14.79	0.43	0.53	0.82	0.60	0.29
2	0.46	0.42	1.55	4.82	0.68	1.44	15.52	0.38	0.47	0.70	0.56	0.29
3	1.09	0.45	1.48	4.00	0.67	1.33	15.73	0.49	0.44	0.61	0.50	0.29
4	1.31	0.48	1.42	3.58	0.66	1.11	15.64	0.52	0.46	0.56	0.46	0.28
5	1.12	0.55	1.55	3.46	0.65	1.09	15.07	0.46	0.46	0.52	0.46	0.27
6	0.98	0.59	1.45	3.58	0.64	1.02	14.04	0.40	0.43	0.49	0.46	0.27
7	0.86	0.62	1.42	3.82	0.63	0.98	13.43	0.36	0.40	0.45	0.46	0.26
8	0.76	0.66	1.39	3.82	0.62	0.87	12.16	0.33	0.36	0.43	0.46	0.26
9	0.68	0.69	1.36	3.70	0.61	0.78	11.16	0.31	0.33	0.41	0.46	0.25
10	0.61	0.72	1.33	3.58	0.60	0.71	10.36	0.29	0.31	0.39	0.46	0.25
11	0.56	0.76	1.30	3.46	0.59	0.65	9.75	0.27	0.29	0.37	0.46	0.24
12	0.51	0.94	1.27	3.34	0.58	0.60	9.25	0.25	0.27	0.35	0.46	0.24
13	0.47	1.15	1.24	3.22	0.57	0.56	8.74	0.24	0.25	0.33	0.46	0.23
14	0.43	0.93	1.21	3.10	0.56	0.53	8.47	0.22	0.24	0.32	0.46	0.23
15	0.40	0.75	1.19	2.98	0.55	0.50	8.96	0.21	0.23	0.30	0.46	0.22
16	0.38	0.61	1.16	2.86	0.54	0.47	8.88	0.20	0.22	0.29	0.46	0.22
17	0.36	0.50	1.13	2.74	0.53	0.45	8.44	0.19	0.21	0.28	0.46	0.21
18	0.34	0.41	1.10	2.62	0.52	0.43	8.03	0.18	0.20	0.27	0.46	0.21
19	0.32	0.34	1.07	2.50	0.51	0.41	7.64	0.17	0.19	0.26	0.46	0.20
20	0.30	0.28	1.04	2.38	0.50	0.39	7.27	0.16	0.18	0.25	0.46	0.20
21	0.29	0.23	1.01	2.26	0.49	0.38	6.92	0.15	0.17	0.24	0.46	0.19
22	0.27	0.19	0.98	2.14	0.48	0.36	6.59	0.14	0.16	0.23	0.46	0.19
23	0.26	0.16	0.95	2.02	0.47	0.35	6.28	0.13	0.15	0.22	0.46	0.18
24	0.25	0.13	0.92	1.90	0.46	0.33	5.99	0.12	0.14	0.21	0.46	0.18
25	0.24	0.11	0.89	1.78	0.45	0.32	5.71	0.11	0.13	0.20	0.46	0.17
26	0.23	0.09	0.86	1.66	0.44	0.31	5.45	0.10	0.12	0.19	0.46	0.17
27	0.22	0.07	0.83	1.54	0.43	0.30	5.20	0.09	0.11	0.18	0.46	0.16
28	0.21	0.06	0.80	1.42	0.42	0.29	4.97	0.08	0.10	0.17	0.46	0.16
29	0.20	0.05	0.77	1.30	0.41	0.28	4.75	0.07	0.09	0.16	0.46	0.15
30	0.40	1.64	4.03	0.71	0.0	10.73	0.51	0.71	0.72	0.70	0.99	0.0
31	0.39	0.0	4.61	0.70	0.0	15.28	0.0	0.61	0.0	0.60	0.88	0.0
TOT	17.41	46.52	42.82	49.27	16.23	89.99	140.80	17.26	11.85	15.28	12.33	8.09

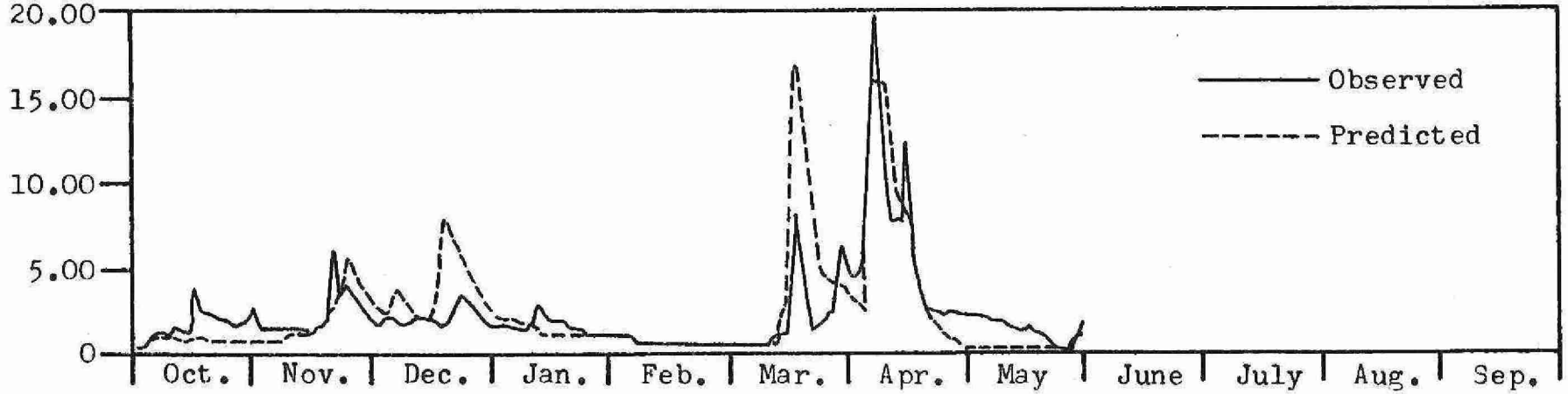
TOTAL FOR WATER YEAR = 467.85



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR : APIOS - HALIBURTON

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.24	0.46	1.26	2.32	0.66	0.45	3.68	0.50	1.12	0.83	1.06	2.12
2	0.24	0.54	1.26	2.02	0.65	0.44	3.46	0.46	0.95	0.73	0.92	1.81
3	0.24	0.52	1.14	1.79	0.64	0.44	3.06	0.43	0.82	0.65	0.81	1.55
4	0.23	0.51	1.04	1.60	0.63	0.43	2.50	0.40	0.71	0.59	0.72	1.35
5	0.23	0.50	0.96	1.45	0.63	0.43	2.20	0.38	0.62	0.54	0.66	1.18
6	0.23	0.55	0.88	1.33	0.62	0.42	1.96	0.37	0.64	0.50	0.60	1.04
7	0.23	0.55	0.81	1.22	0.61	0.42	1.59	0.36	0.62	0.62	0.68	0.87
8	0.23	0.58	0.75	1.15	0.60	0.42	1.06	0.35	0.56	0.66	0.82	0.78
9	0.23	0.58	0.71	1.09	0.59	0.41	1.30	0.34	0.50	0.69	0.76	0.74
10	0.23	0.70	0.67	1.04	0.59	0.41	1.27	0.34	0.46	0.64	0.69	0.69
11	0.23	0.75	0.64	0.99	0.58	0.40	1.05	0.33	0.43	0.57	0.64	0.64
12	0.23	0.74	0.61	0.95	0.57	0.39	0.99	0.33	0.40	0.55	0.59	0.60
13	0.23	0.71	0.58	0.92	0.56	0.39	0.95	0.32	0.38	0.53	0.55	0.56
14	0.23	0.67	0.56	0.89	0.56	0.38	0.91	0.32	0.64	0.45	0.52	0.53
15	0.23	0.55	0.54	0.87	0.55	0.38	0.88	0.31	0.75	0.98	0.49	0.50
16	0.23	0.49	0.52	0.85	0.54	0.37	0.93	0.31	0.64	0.92	0.46	0.48
17	0.23	0.44	0.50	0.83	0.53	0.37	0.60	0.30	0.57	0.84	0.44	0.46
18	0.23	0.40	0.48	0.81	0.52	0.36	0.55	0.30	0.51	0.96	0.42	0.44
19	0.23	0.62	0.46	0.80	0.51	0.36	0.74	0.29	0.80	0.84	0.40	0.42
20	0.23	0.78	0.44	0.78	0.51	0.35	0.50	0.29	0.88	0.80	0.39	0.41
21	0.23	0.66	0.43	0.77	0.50	0.35	0.57	0.28	0.88	0.98	0.37	0.39
22	0.23	0.55	0.41	0.76	0.49	0.34	0.73	0.28	0.56	0.85	0.36	0.38
23	0.23	0.48	0.40	0.75	0.49	0.34	1.44	0.27	0.30	0.78	0.35	0.36
24	0.23	0.43	0.38	0.74	0.48	0.33	2.22	0.27	0.18	0.72	0.34	0.35
25	0.23	0.40	0.37	0.73	0.47	0.33	2.04	0.26	0.05	0.88	0.33	0.34
26	0.23	0.37	0.35	0.72	0.47	0.32	1.88	0.26	0.91	0.82	0.32	0.33
27	0.23	0.35	0.34	0.71	0.46	0.32	0.76	0.25	0.79	0.74	0.31	0.32
28	0.23	0.33	0.33	0.70	0.46	0.31	0.66	0.25	0.94	0.67	0.30	0.31
29	0.23	0.32	0.32	0.69	0.46	0.31	0.56	0.24	0.96	0.46	0.30	0.30
30	0.23	0.31	0.31	0.68	0.0	0.30	0.56	0.24	0.96	0.46	0.29	0.29
31	0.23	0.0	0.30	0.67	0.0	0.30	0.0	0.23	0.0	0.24	0.29	0.0
TOT	17.43	49.24	90.59	31.64	16.00	116.97	152.71	12.61	29.16	25.96	28.99	24.00

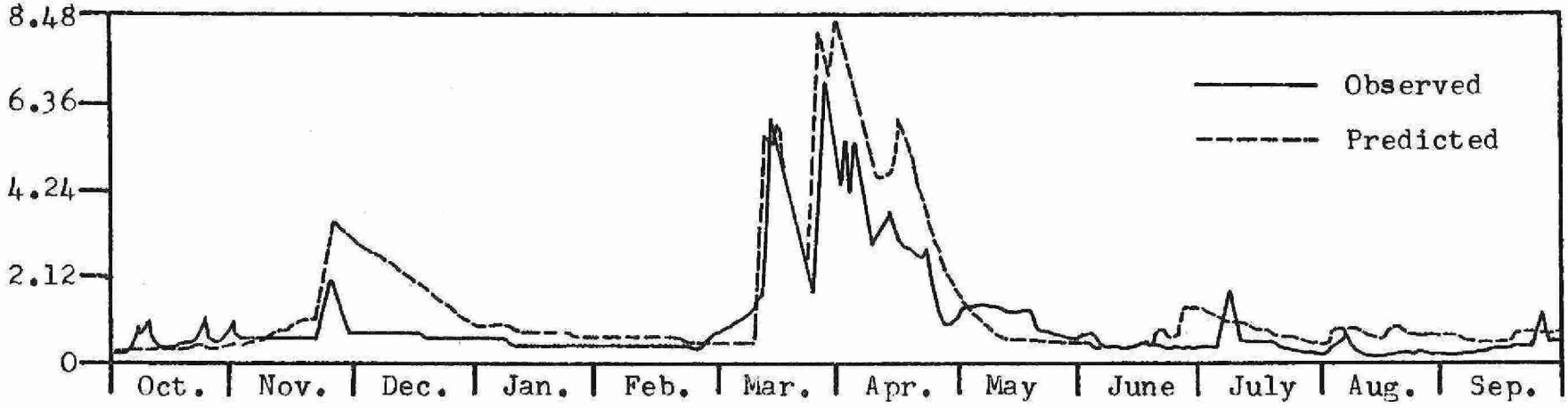
TOTAL FOR WATER YEAR = 595.29



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1977 FOR APIOS - MOOSE

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.40	0.35	2.83	0.95	0.57	0.39	7.14	1.49	0.29	1.14	0.43	0.49
2	0.39	0.38	2.69	0.93	0.56	0.38	8.48	1.38	0.28	1.07	0.42	0.47
3	0.38	0.41	2.55	0.91	0.55	0.38	7.87	1.29	0.28	1.00	0.40	0.46
4	0.37	0.43	2.44	0.89	0.55	0.37	7.26	1.20	0.27	0.94	0.78	0.44
5	0.37	0.46	2.31	0.88	0.54	0.37	6.68	1.12	0.26	1.16	0.75	0.44
6	0.37	0.49	2.21	0.86	0.53	0.36	6.15	1.04	0.26	1.09	0.71	0.43
7	0.36	0.51	2.11	0.84	0.53	0.36	5.67	0.97	0.25	1.02	0.67	0.42
8	0.36	0.54	2.01	0.83	0.52	0.36	5.22	0.91	0.24	0.96	0.64	0.41
9	0.36	0.57	1.93	0.81	0.51	0.35	4.81	0.85	0.24	0.90	0.64	0.40
10	0.36	0.59	1.85	0.80	0.50	0.44	4.44	0.80	0.23	0.85	0.61	0.39
11	0.36	0.62	1.77	0.78	0.50	0.84	4.47	0.75	0.23	0.80	0.58	0.38
12	0.36	0.64	1.70	0.77	0.49	0.86	4.52	0.70	0.22	0.76	0.56	0.37
13	0.36	0.67	1.64	0.76	0.48	0.57	4.57	0.66	0.22	0.71	0.53	0.36
14	0.36	0.69	1.58	0.75	0.48	0.38	4.81	0.62	0.21	0.68	0.51	0.35
15	0.36	0.72	1.52	0.73	0.47	0.98	5.42	0.59	0.21	0.64	0.49	0.34
16	0.36	0.75	1.47	0.72	0.46	0.52	5.06	0.56	0.21	0.61	0.47	0.33
17	0.36	0.77	1.42	0.71	0.46	1.10	4.74	0.53	0.20	0.58	0.45	0.32
18	0.36	0.79	1.38	0.70	0.45	1.72	4.38	0.50	0.20	0.55	0.43	0.31
19	0.36	0.91	1.33	0.69	0.44	1.36	4.03	0.48	0.20	0.53	0.41	0.30
20	0.36	0.94	1.29	0.68	0.44	1.03	3.72	0.45	0.19	0.50	0.39	0.29
21	0.36	0.96	1.25	0.67	0.43	0.73	3.47	0.43	0.19	0.48	0.37	0.28
22	0.36	0.97	1.21	0.66	0.43	0.46	3.21	0.41	0.19	0.45	0.36	0.27
23	0.36	0.98	1.17	0.65	0.42	0.20	2.95	0.39	0.18	0.43	0.34	0.26
24	0.36	0.99	1.13	0.64	0.42	0.97	2.72	0.38	0.18	0.41	0.32	0.25
25	0.36	1.01	1.09	0.63	0.41	0.75	2.50	0.36	0.18	0.39	0.31	0.24
26	0.36	1.03	1.07	0.62	0.41	0.56	2.30	0.34	0.17	0.38	0.30	0.23
27	0.36	1.07	1.04	0.61	0.40	0.38	2.11	0.33	0.17	0.36	0.29	0.22
28	0.36	1.04	1.02	0.60	0.39	0.22	1.94	0.32	0.17	0.35	0.28	0.22
29	0.37	1.09	1.00	0.59	0.0	0.07	1.78	0.31	0.16	0.34	0.27	0.21
30	0.36	0.96	0.98	0.58	0.0	7.29	1.63	0.30	0.16	0.33	0.26	0.20
31	0.36	0.0	0.97	0.58	0.0	7.73	0.0	0.29	0.0	0.44	0.51	0.0
TOT	11.42	31.59	50.16	22.83	13.32	96.43	136.54	20.78	12.46	21.19	19.62	14.21

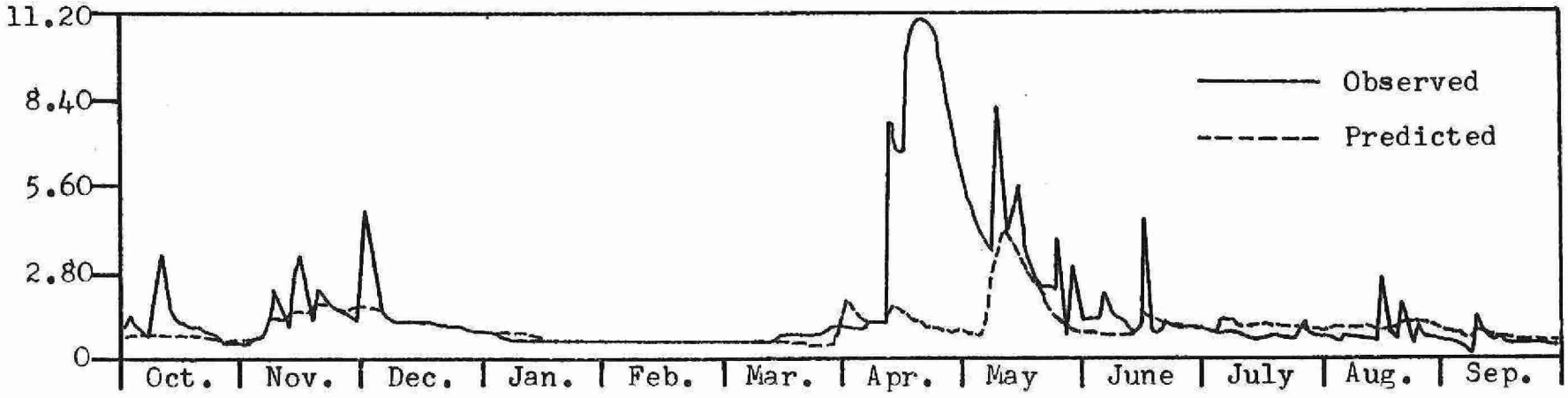
TOTAL FOR WATER YEAR = 450.55



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1978 FOR : APIOS - MOOSE

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.67	0.37	1.77	0.89	0.58	0.40	1.70	0.54	0.97	0.58	0.50	0.70
2	0.65	0.40	1.73	0.88	0.57	0.39	1.59	0.51	0.92	0.56	0.80	0.68
3	0.63	0.47	1.67	0.87	0.56	0.39	1.47	0.49	0.87	0.54	0.77	0.65
4	0.59	0.50	1.62	0.85	0.55	0.38	1.36	0.46	0.84	0.53	0.74	0.63
5	0.57	0.52	1.57	0.84	0.55	0.38	1.28	0.48	0.79	0.51	0.71	0.60
6	0.55	0.54	1.53	0.83	0.54	0.37	1.18	0.48	0.75	0.50	0.68	0.58
7	0.53	0.60	1.49	0.81	0.53	0.37	1.10	0.45	0.73	0.82	0.65	0.56
8	0.81	0.62	1.45	0.80	0.53	0.36	1.02	0.43	0.68	0.79	0.62	0.55
9	0.78	0.64	1.41	0.79	0.52	0.36	0.95	0.42	0.65	0.75	0.60	0.55
10	0.74	1.28	1.37	0.78	0.51	0.36	0.88	0.59	0.62	0.72	0.58	0.88
11	0.72	1.30	1.34	0.77	0.50	0.35	1.55	0.08	0.60	0.69	0.56	0.85
12	0.68	1.28	1.31	0.76	0.50	0.35	1.51	0.79	0.48	0.66	0.54	0.81
13	0.65	1.26	1.28	0.75	0.49	0.34	1.44	0.56	0.41	0.63	0.52	0.78
14	0.62	1.25	1.25	0.74	0.48	0.34	1.29	0.51	0.32	0.61	0.51	0.76
15	0.64	1.24	1.22	0.73	0.48	0.34	1.20	0.06	0.24	0.59	0.49	0.73
16	0.61	1.68	1.20	0.72	0.47	0.33	1.11	0.84	0.17	0.57	0.49	0.70
17	0.59	1.70	1.17	0.71	0.47	0.33	1.03	0.63	0.15	0.55	0.48	0.67
18	0.56	1.66	1.15	0.70	0.46	0.33	1.03	0.49	0.09	0.55	0.61	0.65
19	0.54	1.63	1.12	0.69	0.45	0.32	1.03	0.31	0.03	0.51	0.60	0.63
20	0.52	1.60	1.10	0.68	0.45	0.32	1.07	0.15	0.97	0.50	0.58	0.61
21	0.50	1.73	1.08	0.67	0.44	0.32	0.99	0.00	0.92	0.49	0.56	0.59
22	0.48	1.75	1.06	0.66	0.44	0.31	0.91	0.86	0.87	0.47	0.54	0.57
23	0.47	1.69	1.04	0.65	0.44	0.31	0.85	0.73	0.83	0.46	0.52	0.55
24	0.45	1.67	1.02	0.64	0.43	0.31	0.79	0.62	0.78	0.45	0.90	0.52
25	0.44	1.65	1.00	0.63	0.42	0.30	0.76	0.51	0.75	0.44	0.87	0.50
26	0.43	1.63	0.99	0.62	0.41	0.30	0.76	0.41	0.72	0.55	0.83	0.48
27	0.42	1.61	0.97	0.62	0.41	0.30	0.73	0.32	0.69	0.54	0.83	0.46
28	0.41	1.60	0.95	0.61	0.40	0.29	0.70	0.24	0.66	0.52	0.84	0.45
29	0.40	1.58	0.94	0.60	0.0	0.29	0.64	0.16	0.63	0.55	0.80	0.43
30	0.39	1.57	0.92	0.59	0.0	0.27	0.59	1.09	0.61	0.55	0.77	0.52
31	0.38	0.0	0.91	0.58	0.0	1.03	0.0	1.03	0.0	0.52	0.73	0.0
TOT	17.41	36.98	38.63	22.43	13.54	10.95	32.54	59.76	26.73	17.67	20.21	18.89

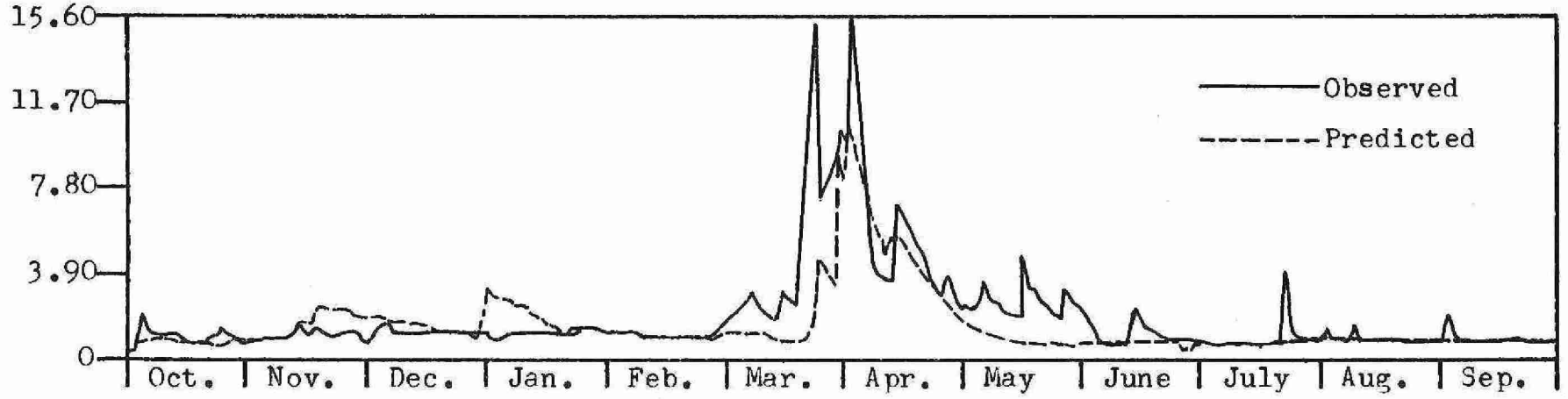
TOTAL FOR WATER YEAR = 315.74



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1979 FOR 1 APIOS - MOOSE

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.51	0.43	1.91	3.05	0.83	0.97	8.50	1.61	0.65	0.56	0.60	0.33
2	0.50	0.46	1.86	2.87	0.81	0.94	10.65	1.49	0.62	0.54	0.57	0.33
3	0.89	0.49	1.81	2.70	0.79	0.90	9.90	1.48	0.59	0.51	0.55	1.52
4	0.86	0.53	1.76	2.55	0.77	0.86	9.13	1.38	0.56	0.49	0.53	1.10
5	0.82	0.56	1.72	2.41	0.75	0.93	8.41	1.28	0.53	0.47	0.51	1.00
6	0.79	0.59	1.67	2.28	0.74	0.90	7.74	1.19	0.51	0.45	0.48	0.90
7	0.76	0.62	1.63	2.16	0.72	0.86	7.13	1.11	0.53	0.43	0.52	0.90
8	0.72	0.66	1.60	2.05	0.70	0.82	6.56	1.04	0.51	0.42	0.50	0.90
9	0.69	0.69	1.56	1.94	0.69	0.79	6.04	0.97	0.49	0.40	0.60	0.90
10	0.67	0.72	1.53	1.85	0.68	0.75	5.57	0.91	0.62	0.39	0.58	0.90
11	0.64	0.75	1.49	1.76	0.66	0.72	5.13	0.86	0.60	0.38	0.55	0.90
12	0.62	0.78	1.46	1.68	0.65	0.70	4.74	1.18	0.57	0.37	0.53	0.90
13	0.60	1.52	1.43	1.60	0.64	0.67	5.63	1.11	0.54	0.36	0.51	0.90
14	0.58	1.56	1.40	1.53	0.63	0.65	5.49	1.06	0.52	0.35	0.49	1.31
15	0.56	1.54	1.38	1.47	0.61	0.62	5.36	1.01	0.49	0.34	0.47	1.10
16	0.55	1.52	1.35	1.40	0.60	0.60	5.01	0.94	0.47	0.33	0.45	0.90
17	0.53	1.11	1.33	1.35	0.59	0.58	4.71	0.88	0.45	0.32	0.44	0.90
18	0.52	1.35	1.30	1.29	0.58	0.56	4.37	0.83	0.44	0.31	0.42	0.90
19	0.50	1.32	1.28	1.25	0.57	0.57	4.06	0.78	0.42	0.31	0.41	0.88
20	0.49	1.26	1.25	1.20	0.56	0.83	3.81	0.73	0.40	0.30	0.40	0.88
21	0.48	1.20	1.23	1.16	0.55	1.09	3.64	0.69	0.39	0.30	0.38	0.88
22	0.47	1.16	1.21	1.12	0.55	1.38	3.37	0.65	0.37	0.29	0.37	0.87
23	0.46	1.12	1.19	1.08	0.54	1.80	3.10	0.62	0.38	0.29	0.36	0.87
24	0.45	1.08	1.17	1.04	0.53	2.60	2.85	0.59	0.37	0.28	0.35	0.87
25	0.49	1.04	1.15	1.01	0.52	4.36	2.62	0.58	0.36	0.27	0.35	0.86
26	0.48	1.02	1.13	0.98	0.51	4.05	2.47	0.86	0.36	0.26	0.37	0.86
27	0.47	1.99	1.12	0.95	0.50	3.75	2.27	0.82	0.35	0.26	0.36	0.86
28	0.46	1.97	1.10	0.92	0.50	3.48	2.09	0.77	0.33	0.25	0.35	0.86
29	0.45	1.95	1.08	0.90	0.00	5.08	1.91	0.77	0.34	0.25	0.34	0.85
30	0.44	1.93	1.07	0.87	0.0	6.91	1.76	0.73	0.58	0.62	0.33	0.85
31	0.44	0.0	3.27	0.85	0.0	9.26	0.0	0.69	0.0	0.59	0.32	0.0
TOT	17.90	42.90	45.46	49.28	17.78	61.00	154.02	29.61	14.39	13.98	13.98	8.61

TOTAL FOR WATER YEAR = 468.90



DAILY STREAMFLOWS (MM) PREDICTED FOR WATER YEAR 1980 FOR 1 APIOS - MOOSE

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.
1	0.25	0.50	3.03	2.85	0.79	0.46	4.54	2.12	0.84	0.97	1.01	1.50
2	0.25	0.52	2.88	2.68	0.77	0.45	4.44	1.97	0.80	0.92	0.98	1.42
3	0.25	0.53	2.74	2.53	0.75	0.45	4.13	1.84	0.76	0.87	0.93	1.33
4	0.26	0.54	2.60	2.39	0.73	0.44	3.81	1.71	0.72	0.83	0.89	1.27
5	0.26	0.56	2.48	2.26	0.72	0.44	3.61	1.59	0.69	0.79	0.85	1.20
6	0.26	0.58	2.35	2.14	0.70	0.44	3.38	1.49	0.71	0.75	0.81	1.14
7	0.26	0.59	2.23	2.03	0.69	0.44	3.94	1.39	0.68	0.72	0.79	1.08
8	0.27	0.61	2.12	1.93	0.67	0.44	8.74	1.30	0.65	0.68	1.24	1.03
9	0.64	0.63	2.01	1.83	0.66	0.44	9.90	1.22	0.62	0.75	1.17	0.98
10	0.61	0.64	1.91	1.74	0.65	0.44	9.57	1.15	0.59	0.71	1.11	0.95
11	0.58	0.72	1.81	1.66	0.63	0.44	9.17	1.08	0.57	0.68	1.05	0.91
12	0.64	0.74	1.72	1.58	0.62	0.44	8.67	1.01	0.54	0.66	1.00	0.87
13	0.61	0.75	1.63	1.51	0.61	0.44	8.01	0.95	0.52	0.63	0.95	0.83
14	0.58	0.76	1.55	1.44	0.60	0.43	8.57	0.90	0.67	0.67	0.91	0.88
15	0.55	0.77	1.47	1.38	0.59	0.43	8.00	0.85	0.65	0.64	0.87	0.84
16	0.53	0.78	1.40	1.33	0.58	0.37	7.38	0.80	0.62	0.91	0.83	0.81
17	0.51	0.80	1.33	1.27	0.57	1.69	6.80	0.76	0.59	0.87	0.79	0.79
18	0.48	0.82	1.27	1.22	0.56	1.58	6.26	0.76	0.57	0.83	0.76	0.76
19	0.62	0.85	1.21	1.18	0.55	1.47	5.77	0.73	1.61	0.79	0.73	0.74
20	0.65	1.08	1.15	1.14	0.55	1.76	5.33	0.69	1.54	0.93	0.71	0.71
21	0.62	1.11	1.12	1.10	0.54	1.89	4.89	0.66	1.44	0.89	0.68	0.69
22	0.59	1.11	1.08	1.06	0.53	2.08	4.50	0.63	1.35	0.93	0.66	0.77
23	0.58	1.11	1.05	1.02	0.53	1.44	4.14	0.60	1.27	0.89	0.64	0.75
24	0.56	1.10	1.02	0.99	0.53	1.86	3.81	0.57	1.19	0.85	0.62	0.72
25	0.53	1.24	0.99	0.96	0.52	1.87	3.51	0.55	1.17	0.81	0.60	0.70
26	0.51	1.41	0.96	0.93	0.49	1.87	3.23	0.53	1.10	0.87	0.58	0.68
27	0.49	1.58	0.93	0.90	0.48	1.42	2.96	0.51	1.04	0.83	0.63	0.66
28	0.47	1.45	0.91	0.88	0.48	1.23	2.73	0.49	0.99	1.28	0.67	0.64
29	0.45	1.30	0.88	0.85	0.47	1.07	2.50	0.50	1.08	1.22	0.73	0.62
30	0.44	1.16	0.86	0.83	0.0	0.96	2.29	0.93	1.03	1.15	1.66	0.60
31	0.42	0.0	0.83	0.81	0.0	0.81	0.0	0.89	0.0	1.09	1.56	0.0
TOT	16.01	39.68	85.38	46.41	17.45	83.10	165.57	31.15	26.59	26.61	28.86	27.00

TOTAL FOR WATER YEAR = 593.80